Appendix C

APPENDIX C

WATER QUALITY RESULTS

Presented in Appendix C are the analytical water quality results for the Philadelphia Coke Company plant. Analytical results are compiled through seven quarters of sampling from April 10, 1986, to October 10, 1986. Original lab reports prepared by RMC Laboratories and chain of custody documentation are not included due to the large volume of data, but are available upon request.

The water quality results are divided into four sections including: Volatile Organics, Acid Extractables, Base/Neutral Extractables, and Water Quality Parameters. In addition to analytical results presented for monitoring wells W-1 through W-4, results from trip blanks (T blank), field blanks (F blank), and field duplicates (DUP) are also included.

In results for individual parameters, an ND indicates that the parameter was not detected. A less than symbol indicates that the parameter was detected but the concentration is below the detection limits of the analytical instrument. NS indicates that the parameter was not sampled/analyzed for.

CATEGORY	DADAMETED	HALLE	DATE 04/10/85	DATE 06/26/85	DATE 10/15/85	DATE 01/23/86	DATE 04/24/86	DATE 07/29/86	DATE 10/10/86
CATEGORI	PARAMETER	UNITS	CONCENTRATION						
VOLATILES	,								
	CHLOROMETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	BROMOMETHANE	ug/l	ND	ND	ND	ND	ND .	<5.0000	ND
	VINYL CHLORIDE	ug/1	ND	ND	·NÐ	ND	ND	<5.0000	ND
	CHLOROETHANE	ug/l	ND	ND	ND ·	ND	ND	<5.0000	ND
	METHYLENE CHLORIDE	ug/l	ND	<1.0000	9,2000	ND	4.4000	<5.0000	- ND -
	ACROLEIN	ug/l	ND	ND	· ND	ND	ND	<80.0000	ND
	ACRYLONITRILE	ug/1	ND	ND	ND	ND	ND	<80.0000	ND
	1,1-DICHLOROETHENE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND .
	1,1-DICHLOROETHANE	ug/l	ND	ND	ND	ND	<1.0000	<5.0000	ND
	TRANS-1,2-DICHLOROETHENE	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
	CHLOROFORM	ug/l	ND	ND	ND	<1.0000	ND	<5.0000	ND
	1,2-DICHLOROETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	1,1,1-TRICHLOROETHANE	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
	CARBON TETRACHLORIDE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	BROMODICHLOROMETHANE	ug/l	NĐ	ND	, ND	ND	ND	<5.0000	ND
	1,2-DICHLOROPROPANE	ug/l	ND	ND	ND	. ND	ND	<5.0000	ND
	.1,3-DICHLOROPROPENE	ug/1	ND	ND	ND	ND	ND	NS	ND
	TRICHLOROETHENE	ug/l	ND	. ND	NO	ND	ND	NS	ND
	8ENZENE	ug/1	ND	1.3000	ND	ND	ND	<5.0000	ND
	DIBROMOCHLOROMETHANE	ug/1	ND	· ND	ND	ND	ND	<5.0000	· ND
	1,1,2-TRICHLOROETHANE	ug/1	ND	ND	ND	ND .	ND	<5.0000	ND
	2-CHLOROETHYLVINYL ETHER	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	8ROMOFORM	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
	TETRACHLOROETHENE	ug/l	ND	ND	ND .	ND	ND	<5.0000	ND 's
	1,1,2,2-TETRACHLOROETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	TOLUENE	ug/l	ND	0.2000	ND	7.7000	ND	<5.0000	ND
•	CHLOROBENZENE	ug/1	ND	ND	ND ·	ND	ND	<5.0000	ND
	ETHYLBENZENE	ug/1	ND	ND	ND	ND	ND	<5.0000 →	ND

CATEGORY	PARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 10/15/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 CONCENTRATION
VOLATILES .				•					
	CHLOROMETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	BROMOMETHANE	ug/l	ND	ND.	ND	ND	ND	<5.0000	ND .
	VINYL CHLORIDE	ug/l	ND	· ND	ND	ND	ND	<5.0000	ND .
	CHLOROETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	METHYLENE CHLORIDE	ug/]	6.2000	<1.0000	· ND	ND	2.4000	<5.0000	ND ND
	ACROLEIN	ug/1 -	ND	ND -	ND	ND -	ND	<80.0000	ND
	ACRYLONITRILE	ug/l	ND	ND .	NĐ	ND	ND	<80.0000	ND ND
	1,1-DICHLOROETHENE	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
	1,1-DICHLOROETHANE	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
	TRANS-1,2-DICHLOROETHENE	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
,	CHLOROFORM	ug/l	ND	ND	<1.0000	ND	ND	<5.0000	ND
	1,2-DICHLOROETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	· ND
	1,1,1-TRICHLOROETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	CARBON TETRACHLORIDE	ug/l	ND	ND	ND.	ND	ND	<5.0000	ND
	BROMODICHLOROMETHANE	ug/l	ND	ND .	ND	ND	ND	<5.0000	ND
	1,2-DICHLOROPROPANE	ug/l	- ND	ND	ND	ND	ND	<5.0000	ND
	1,3-DICHLOROPROPENE	ug/1	ND	ND	ND	ND	ND ·	NS	ND
	TRICHLOROETHENE	ug/l	ND	<0.2000	ND	ND	ND	NS	ND
	BENZENE	ug/1	143.0000	234.0000	86.0000	ND	73.4000	490.0000	ND
	DIBROMOCHLOROMETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
•	1,1,2-TRICHLOROETHANE	ug/1	ND	<5.0000	ND .	ND	ND	<5.0000	ND
	2-CHLOROETHYLVINYL ETHER	ug/l	ND	ND	ND	ND	ND	<5.0000	ND.
	BROMOFORM	ug/1	ND	ND	ND .	ND	ND	<5.0000 ·	ND ·
	TETRACHLOROETHENE	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
	1,1,2,2-TETRACHLOROETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	TOLUENE	ug/1	60.0000	76.0000	81.0000	ND	17.6000	59.4000	ND
	CHLOROBENZENE	ug/1	ND	ND	· ND	ND	ND	<5.0000	ND
	ETHYLBENZENE	ug/1	3.0000	5.1000	43.0000	ND	ND	16.8000	ND

			DATE
			04/24/86
CATEGORY	PARAMETER	UNITS	CONCENTRATION
VOLATILES			·.
-	CHLOROMETHANE	ug/l	ND
	BROMOMETHANE	ug/l	ND
	VINYL CHLORIDE	ug/1	ND
	CHLOROETHANE	ug/1	ND
	METHYLENE CHLORIDE	ug/1	2.1000
_	ACROLEIN	-ug/1	ND -
•	ACRYLONITRILE	ug/1	ND
	1,1-DICHLOROETHENE	ug/l	ND
	1,1-DICHLOROETHANE	ug/1	ND
	TRANS-1,2-DICHLOROETHENE	ug/l	ND
	CHLOROFORM	ug/l	ND
	1,2-DICHLOROETHANE	ug/1	ND
	1,1,1-TRICHLOROETHANE	ug/l	ND
	CARBON TETRACHLORIDE	ug/l	ND
	BROMODICHLOROMETHANE	ug/1	ND
	1,2-DICHLOROPROPANE	ug/l	ND
	1,3-DICHLOROPROPENE	ug/1	ND
	TRICHLOROETHENE	ug/l	ND
	BENZENE	ug/l	66.3000
	DIBROMOCHLOROMETHANE	ug/l	ND .
	1,1,2-TRICHLOROETHANE	ug/1	ND
	2-CHLOROETHYLVINYL ETHER	ug/l	ND
	BROMOFORM	ug/l	ND
	TETRACHLOROETHENE	_ug/1	ND
	1,1,2,2-TETRACHLOROETHANE	ug/1	ND
	TOLUENE	ug/l	15.0000
	CHLOROBENZENE	ug/l	ND
•	ETHYLBENZENE	ug/]	6.2000

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CATEGORY	DADAMETER		DATE 04/10/85	DATE 06/26/85	DATE 10/15/85	DATE 01/23/86	DATE 04/24/86	DATE 07/29/86	DATE 10/10/86
CATEGORY	PARAMETER	UNITS	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION
VOLATILES .	•								
	CHLOROMETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	BROMOMETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
•	VINYL CHLORIDE	ug/l	ND	· ND	ND	ND	ND	<5.0000	ND
	CHLOROETHANE	ug/l	ND	ND	ND .	ND	ND	<5.0000	ND
	METHYLENE CHLORIDE	ug/l	3.8000	<1.0000	ND	ND	6.1000	<5.0000	ND
	ACROLEIN	ug/l	ND	ND	- ND	ND	ND	<80.0000	· ND
	ACRYLONITRILE	ug/1	ND	ND	· ND	ND ·	ND	<80.0000	ЙD
	1,1-DICHLOROETHENE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	1,1-DICHLOROETHANE	ug/1	ND	ND	ND	ND	<1.0000	<5.0000	ND
	TRANS-1,2-DICHLOROETHENE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	CHLOROFORM	ug/1	ND	ND	. ND	ND	ND	<5.0000	ND
	1,2-DICHLOROETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	1,1,1-TRICHLOROETHANE	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
	CARBON TETRACHLORIDE	ug/l	ND .	ND	ND	ND	ND	<5.0000	ND
	BROMODICHLOROMETHANE	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
•	1,2-DICHLOROPROPANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	1,3-DICHLOROPROPENE	ug/1	ND	ND	ND	ND	ND	NS	ND
	TRICHLOROETHENE	ug/l	ND	<0.2000	' ND	ND .	ND	NS	ND .
	BENZENE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND ND
•	DIBROMOCHLOROMETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	1,1,2-TRICHLOROETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND ·
	2-CHLOROETHYLVINYL ETHER	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
	BROMOFORM	ug/1	ND	ND	ND	ND	ND	<5.0000	ND ND
	TETRACHLOROETHENE	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
•	1,1,2,2-TETRACHLOROETHANE	ug/1	ND	ND	· ND	ND	ND	<5.0000 <5.0000	ND
	TOLUENE	ug/1	ND	<0.2000	ND	ND	ND	<5.0000 <5.0000	ND
	CHLOROBENZENE	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
	ETHYLBENZENE	ug/l	ND	<1.0000	ND	ND	ND ND	<5.0000	ND ND
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CATEGORY	. PARAMETER	UNITS	DATE 10/15/85 CONCENTRATION
VOLATILES .			
VOLATILES	OUL ODOMETIANE		
	CHLOROMETHANE	ug/1	ND
	BROMOMETHANE	ug/1	ND
	VINYL CHLORIDE	ug/l	ND
	CHLOROETHANE	ug/l	ND
	METHYLENE CHLORIDE	ug/l	ND
	ACROLEIN	ug/l	ND
	ACRYLONITRILE	ug/l	ND
	1,1-DICHLOROETHENE	ug/l	ND
	1,1-DICHLOROETHANE	ug/l	ND
	TRANS-1, 2-DICHLOROETHENE	ug/l	ND
	CHLOROFORM	ug/1	ND
	1,2-DICHLOROETHANE	ug/l	ND .
	1,1,1-TRICHLOROETHANE	ug/1	NÖ
	CARBON TETRACHLORIDE	ug/l	ND
	BROMODICHLOROMETHANE	ug/l	ND
	1,2-DICHLOROPROPANE	ug/l	ND
	1,3-DICHLOROPROPENE	ug/l	ND
	TRICHLOROETHENE	ug/l	ND
	BENZENE	ug/l	ND
•	DIBROMOCHLOROMETHANE	ug/l	ND
*	1,1,2-TRICHLOROETHANE	ug/l	ND.
	2-CHLOROETHYLVINYL ETHER	ug/l	ND
	BROMOFORM	ug/l	· ND
	TETRACHLOROETHENE	ug/1	ND
	1,1,2,2-TETRACHLOROETHANE	ug/1	ND
	TOLUENE	ug/l	ND .
	CHLOROBENZENE	ug/l	ND.
	ETHYLBENZENE	ug/1	ND

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	•		DATE 04/10/85	DATE 06/26/85	DATE 10/15/85	DATE 01/23/86	DATE 04/24/86	DATE 07/29/86	DATE 10/10/86
CATEGORY	PARAMETER	UNITS	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION
VOLATILES			,						
	CHLOROMETHANE	ug/1	ND.	ND	ND	√ ND	ND	<5.0000	ND
	BROMOMETHANE	ug/l	. ND	ND	ND ND	· ND	ND	<5.0000 <5.0000	ND ND
	VINYL CHLORIDE	ug/1	ND	· ND	ND	ND .	ND	<5.0000 <5.0000	ND
	CHLOROETHANE	ug/1	ND	ND	ND	ND	ND	<5.0000 <5.0000	ND ND
	METHYLENE CHLORIDE	ug/1	3.4000	<1.0000	ND .	ND	ND .	<5.0000 <5.0000	· ND
	ACROLEIN	ug/l	ND	MD	ND	ND:	ND	<80.0000 <u>-</u>	ND — —
	ACRYLONITRILE	ug/1	ND	ND	ND	ND	ND	<80.0000	ND
	1,1-DICHLOROETHENE	ug/l	ND	ND.	ND	ND	ND	<5.0000	ND
	1,1-DICHLOROETHANE	ug/1	ND	ND	·ND	ND	ND	<5.0000 <5.0000	ND .
	TRANS-1,2-DICHLOROETHENE	ug/1	ND	ND	ND	ND	ND	<5.0000 <5.0000	ND
	CHLOROFORM	ug/l	ND	ŅD	ND	<1.0000	ND	<5.0000 <5.0000	ND ND
	1,2-DICHLOROETHANE	ug/1	· ND	ND	ND	ND	ND	<5.0000 <5.0000	ND
	1,1,1-TRICHLOROETHANE	ug/1	ND	ND	ND	ND .	ND:	<5.0000 <5.0000	ND
	CARBON TETRACHLORIDE	ug/1	ND	ND .	ND.	ND	ND	<5.0000 <5.0000	ND
	BROMODICHLOROMETHANE	ug/1	ND	ND	ND:	ND	ND	<5.0000 <5.0000	ND ND
	1,2-DICHLOROPROPANE	ug/1	ND	· ND	· ND	ND	ND ·	<5.0000 <5.0000	
	1,3-DICHLOROPROPENE	ug/1	ND	ND	. ND	ND.	ND		ND ND
	TRICHLOROETHENE	ug/l	ND	<0.2000	ND	ND.	ND	NS NS	ND
	BENZENE	ug/1	ND	ND	ND	ND	ND	•	ND
	DIBROMOCHLOROMETHANE	ug/l	ND	ND ND	ND	· ND	ND	<5.0000 <5.0000	ND
	1,1,2-TRICHLOROETHANE	ug/1	ND	ND	ND ND	ND .	ND ND		ND NO
	2-CHLOROETHYLVINYL ETHER	ug/l	ND	ND	ND.	ND		<5.0000·	ND
	BROMOFORM	ug/1	ND	ND .	ND	ND	ND ND	<5.0000	ND
	TETRACHLOROETHENE	ug/1	ND ND	ND	ND	ND		<5.0000	ND
	1,1,2,2-TETRACHLOROETHANE	ug/l	ND ND	ND .	ND.	ND	ND	<5.0000	ND
	TOLUENE	ug/1	ND	ND .	•		ND NO	<5.0000	ND
	CHLOROBENZENE	ug/1	ND .		ND ND	ND -	. ND	<5.0000	ND
	ETHYLBENZENE	ug/1 ug/1	ND ND	ND ND	ND	ND ND	ND	<5.0000	ND
	CHITCOCALCIAL	uy/ i	טויו	NU	ND	ND	ND	<5.0000	ND

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CATEGORY	PARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 CONCENTRATION
VOLATILES								
	CHLOROMETHANE	ug/1	ND	ND	ND	ND	<5.0000	ND
	BROMOMETHANE	ug/1	ND	ND	ND	ND	<5.0000	ND -
•	VINYL CHLORIDE	ug̀/1	ND	· ND	ND	ND	<5.0000	ND
	CHLOROETHANE	ug/l	ND	ND	ND .	ND	<5.0000	ND
	METHYLENE CHLORIDE	ug/1	ND:	<1.0000	·· ND ′	ND	16.0000	ND
	ACROLEIN	_ug/1	ND ;	ND	ND	ND	<80.0000	NO
	ACRYLONITRILE	ug/1	ND	ND	ND	ND	<80.0000	ND
	1,1-DICHLOROETHENE	ug/l	<1.0000	ND	ND:	ND	<5.0000	ND
	1,1-DICHLOROETHANE	ug/1	ND	ND	ND	<1.0000	<5.0000	ND
	TRANS-1,2-DICHLOROETHENE	ug/l	ND	ND	ND	ND	<5.0000	ND
	CHLOROFORM	ug/1	ND	<1.0000	ND	ND	<5.0000	ND ND
	1,2-DICHLOROETHANE	ug/l	ND	ND	ND	ND	<5.0000	ND
	1,1,1-TRICHLOROETHANE	ug/l	<1.0000	<1.0000	· ND	ND	<5.0000	ND
•	CARBON TETRACHLORIDE	ug/l	ND	ND	ND `	ND	<5.0000	ND
	BROMODICHLOROMETHANE	ug/l	- ND	ND	ND ·	ND	<5.0000	ND
	1,2-DICHLOROPROPANE	ug/l	ND	. ND	ND	ND	<5.0000	ND
	1,3-DICHLOROPROPENE	ug/1	ND	ND	ND:	ND	NS ·	ND
	TRICHLOROETHENE	ug/l	· NÕ	<0.2000	ND	ND	· NS	ND
	BENZENE	ug/1	ND	ND	ND	ND:	<5.0000	ND
	DIBROMOCHLOROMETHANE	ug/l	ND	ND	ND:	ND	<5.0000	ND
•	1,1,2-TRICHLOROETHANE	ug/l	ND .	ND	ND .	ND	<5.0000	ND
	2-CHLOROETHYLVINYL ETHER	ug/l	ND	ND	ND	ND	<5.0000	ND
	BROMÓFORM	ug/l	ND	ND	ND ·	ND	<5.0000	ND
	TETRACHLOROETHENE	ug/1	<1.0000	<1.0000	ND .	· ND	<5.0000	NO:
	1,1,2,2-TETRACHLOROETHANE	ug/1	ND:	ND	ND	ND	<5.0000	ND
	TOLUENE	. ug/1	ND	0.2000	ŇD	ND	<5.0000	ND
	CHLOROBENZENE	ug/1	ND	ND	. ND	ND	<5.0000	` ND
	ETHYLBENZENE	ug/l	ND	<1.0000	ND	ND	<5.0000	ND

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			DATE	DATE	DATE	DATE	DATE	DATE	DATE
			04/10/85	06/26/85	10/15/85	01/23/86	04/24/86	07/29/86	10/10/86
CATEGORY	PARAMETER	UNITS	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION
VOLATILES			٠.						
-	CHLOROMETHANE	ug/l	ND	ND	ND	ND	NĐ	<5.0000	NO
	BROMOMETHANE	ug/1	ND	ND	ND	ND	ND	<5.0000 <5.0000	ND
	VINYL CHLORIDE	ug/1	ND	ND	ND	ND	ND	<5.0000 <5.0000	ND
	CHLOROETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000 <5.0000	ND
	METHYLENE CHLORIDE	ug/1	ND	<1.0000	ND	ND	ND .		ND.
	ACROLEIN	_ug/l	ND	ND	ND	ND	ND	<5.0000	ND
-	ACRYLONITRILE	ug/l	ND	ND	ND	ND		<80.0000	ND
	1,1-DICHLOROETHENE	ug/l	1.2000	. <1.0000	ND	ND	ND	<80.0000	ND
	1,1-DICHLOROETHANE	ug/1	ND	ND	ND ND		ND	<5.0000	ND
	TRANS-1,2-DICHLOROETHENE	ug/1	ND ND	ND ND	ND	ND ND	<1.0000	<5.0000	ND
	CHLOROFORM	ug/1	ND	1.0000		· ND	ND	<5.0000	ND
	1,2-DICHLOROETHANE	ug/l	ND	ND	ND	ND	1.2000	<5.0000	ND
	1,1,1-TRICHLOROETHANE	ug/1 ug/1	<1.0000		ND	, ND	ND	<5.0000	ND
	CARBON TETRACHLORIDE	•		<1.0000	<1.0000	ND	ND	<5.0000	ND
	BROMODICHLOROMETHANE	ug/1	ND .	ND	ND ·	ND	ND	<5.0000	ND
•	· · · · · · · · · · · · · · · · · · ·	ug/1	ND	ND	ND	ND	ND	<5.0000	ND
	1,2-DICHLOROPROPANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	1,3-DICHLOROPROPENE	ug/1	ND	ND .	ND	, ND	ND	NS	ND
	TRICHLOROETHENE	ug/l	ND	ND	ND	ND	ND	NS	ND
	BENZENE	ug/l	ND	ND	ND	ND .	ND	<5.0000	ND
	DIBROMOCHLOROMETHANE	ug/l	ND .	ND	ND	ND	ND	<5.0000	ND
	1,1,2-TRICHLOROETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	2-CHLOROETHYLVINYL ETHER	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	BROMOFORM	ug/l	ND	ND	ND	ND	ND	<5.0000	ND
	TETRACHLOROETHENE	ug/l	2.7000	<1.0000	ND	. ND	ND	<5.0000	ND
	1,1,2,2-TETRACHLOROETHANE	ug/l	ND	ND	ND	ND	ND	<5.0000	ND ND
	TOLUENE	ug/l	0.3000	<0.2000	<0.2000	ND	ND	<5.0000	ND
	CHLOROBENZENE	ug/l	<1.0000	ND	ND	ND	ND	<5.0000	ND
	ETHYLBENZENE	ug/l	ND	ND .	ND	ND	ND	<5.0000	ND
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		•	DATE 04/10/85	DATE 06/26/85	DATE 10/15/85	DATE . 01/23/86	DATE 04/24/86	DATE 07/29/86	DATE 10/10/86
CATEGORY	PARAMETER	UNITS	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION
ACIDS									
	PHENOL	ug/l	ND	ND	ND	ND	ND	ND	ND
•	Ź-CHLOROPHENOL	ug/1	ND	. ND	ND	ND	ND	ND	ND
	2-NITROPHENOL	ug/l	ŅD	ND	ND	ND	ND	ND	ND
•	2,4-DIMETHYLPHENOL	ug/l	ND	ND	ND	ND	ND	ND	ND
	2,4-DICHLOROPHENOL	ug/l	· ND	ŅD	ND	. ND	NĎ	ND	NĎ
	_4 = CHLORO-3 = METHYLPHENOL	ug/ĵ	· · · · · ND. · · · · · ·	· · · · · · · · · · · · · · · · · · ·	ND	ND	ND	ND	· ND
	2,4,6-TRICHLOROPHENOL	ug/1	ND	ND.	ND	ND .	ND	ND	ND
	2,4-DINITROPHENOL	ug/1	ND	ND	· ND ·	ND	ND	ND	ND
	4-NITROPHENOL	ug/]	ND	ND	ND	NÐ	ND	ND	ND:
	2-METHYL-4,6-DINITROPHENOL	ug/l	ND	ND	ND "	ND	ND -	NS	ND
	PENTACHLOROPHENOL	ug/l	ND ·	ND	· ND	ND	ND	ND	ND

CATEGORY	. PARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 10/15/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 CONCENTRATION
ACIDS									•
	PHENOL	u g/]	2710.0000	21.0000	ND	167.0000	ND	ND	170.0000
·	2-CHLOROPHENOL	ug/l	NÐ	ND	ND	ND	ND	ND	ND .
	2-NITROPHENOL	ug/1	ND	ND	ND	ND ·	ND	ND	ND
	2,4-DIMETHYLPHENOL	ug/l	27600:0000	255.0000	ND	479.0000	10.1000	663.0000	104.0000
	2,4-DICHLOROPHENOL	ug/l	ND	ND	ND	ND	ND	ND	ND
	4-CHLORO-3-METHYLPHENOL	ug/] _	, ND	ND	ND .	ND	ND	ND	ND
	2,4,6-TRICHLOROPHEÑOL	ug/l	ND	ND	ND .	ND	ND	ND	ND
	2,4-DINITROPHENOL	ug/l	ND	ND ·	ND	ND	ND	ND	ND
	4-NITROPHENOL	ug/l	ND	ND	ND	ND	ND	ND	ND
	2-METHYL-4,6-DINITROPHENOL	ug/l	ND	ND	ND	ND	ND	NS	ND
	PENTACHLOROPHENOL	ug/l	ND .	ND ·	ND	ND	ND	ND	ND

W-2DUP

			DATE 04/24/86
CATEGORY	PARAMETER	ÚNITS	CONCENTRATION
ACIDS			•
	PHENOL	ug/l	ND
r	2-CHLOROPHENOL	ug/1	ND
	2-NITROPHENOL	ug/l	<10.0000
	2,4-DIMETHYLPHENOL	ug/l	ND
	2,4-DICHLOROPHENOL	ug/1	ND
	4-CHLORO-3-METHYLPHENOL	. ug/1	ND
-	2,4,6-TRICHLOROPHENOL	ug/1	ND
	2,4-DINITROPHENOL	ug/l	ND
	4-NITROPHENOL	ug/l	ND
	2-METHYL-4,6-DINITROPHENOL	ug/1	· ND
	PENTACHLOROPHENOL	ua/1	NĐ

CATEGORY	FARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 10/15/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 CONCENTRATION
APTENS.									
	PHENOL	ug/l	ND	ND	ND	NO	ND	ND	ND
	2 -CHLOROPHENOL	ug/l	NO	NO	ND	ND	ND	ND	ND
	THREE TROPHENOL	ug∕ì	ND	ND	ND	NO.	ND	ND	ND
	2,4-01M) TRYLOGRACE	ug/l	ND	ND	ND	NO	ND	ND	ND
	2.4 of CHLOROPHENOL	ug/1	ND	ND	· ND	ND	ND.	ND	ND
	4 -CHLORO -3 -METHYLPHENOL	ug/l	ND	ND	NO	ND	ND	ND	ND -
	2,4,6 TRICHLOROPHENOL	ug/1	ND	NO	ND	ND	ND	ND	ND
	2,4-DINITROPHENOL	ug/1	ND						
	4 NITROPHENOL	ug/l	ND						
	2 METHYL-4,6-DINTEROPHENOL	ug/1	ND	ND	NO	NO	ND	NS	ND
	PENTACHLOROPHENOL	ug/l	ND	ND	. ND	ND	ND	ND	ND

W-3008

CATEGORY	PARAMETER	UNITS	DATE 10/15/85 CONCENTRATION
ACIOS .			
	PHENOL	ug/l	ND
	2 CHLOROPHENOL	ug/1	ND
	2-N1TROPHENOL	ug/1	ND
	2,4-DIMETHYLPHENOL	ug/l	ND
	2,4-01CHLOROPHENOL	ug/l	NÐ
	4 - CHLORO - 3 METHYLPHENOL	ug/l	ND
	2.4.6-IRICHLOROPHENOL	ug/1	ND
	2,4-UINITROPHENOL	ug/l	ND
	4 -NTTROPHENOL	ug/l	ND
	2-METHYL-4,6-DINITROPHENOL	ug/l	ND
	PEN! ACHL OROPHENOL	ug/1	ND
		•	

CATEGORY	PARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 10/15/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 CONCENTRATION
ACIDS								•	
	PHENOL	u g /1	ND						
_	2-CHLOROPHENOL	ug/}	ND						
•	2-NITROPHENOL	ug/1	ND						
	2,4-DIMETHYLPHENOL	ug/l	ND	ND	ND .	ND	ND	ND	ND
-	2,4-DICHLOROPHENOL	ug/l	ND	ND	ND	NO	ND	ND	ND
	4 -CHLORO-3-METHYLPHENOL	ug/l	ND .	. ND	ND-	ND	ND	ND -	ND
	2,4,6~TRICHLOROPHENOL	ug/l	ND	ND	ND	ND ·	ND	ND	ND
	2,4-DINITROPHENOL	ug/l	ND	ND	ND	ND	ND	ND	ND .
	4-NITROPHENOL	ug/1	ND						
	2-METHYL-4,6-DINITROPHENOL	ug/l	ND	ND	ND	ND	ND	NS	ND
	PENTACHLOROPHENOL	ug/l	ND	ND	· ND	ND	ND	ND	ŅD

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CÀTEGORY	PARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 CONCENTRATION
		•	CONCERTION	OUNCERT THAT TON	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION
ACIDS								
	PHENOL	ug/l	ND	· ND	ND	ND	ND	ND
	2 -CHLOROPHENOL	ug/l	ND	ND	ND	ND	ND	ND
	2-NITROPHENOL	ug/l	ND	ND	ND	ND	ND	ND
*	2,4-DIMETHYLPHENOL	ug/1	ND	NO -	ND	. ND	ND -	ND .
· -	2,4-DICHLOROPHENOL	ug/l	ND	ND	ND	ND .	ND	ND
	4-CHLORO-3-METHYLPHENOL	ug/1	ND	ND .	ND	ND .	ND	ND
	2,4,6-TRICHLOROPHENOL	ug/1	ND	ND	ND	. ND	ND	ND
	2,4-DINITROPHENOL	ug/l	ND	ND	ND	ND	ND	ND
	4-NITROPHENOL	ug/1	ND	ND	ND	ND	ND	ND
	2-METHYL-4,6-DINITROPHENOL	ug/l	ND	ND	ND	ND	NS	ND
	PENTACHLOROPHENOL	ug/1	ND	ND	ND	ND	ND	ND .

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CATEGORY	PARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 10/15/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 CONCENTRATION
ACIDS .									
	PHENOL	ug/l	NS	NS	NS	NS	ND	NS	NS
	2-CHLOROPHENOL	ug/l	NS	NS	NS	NS	ND	NS	NS
	2-NITROPHENOL	ug/l	NS .	NS	NS	NS	ND	NS	NS
	2,4-DIMETHYLPHENOL	ug/l	NS	NS	NS	NS	ND	NS	NS.
	2.4-DICHLOROPHENOL	ug/l	NS	NS	NS	NS	ND -	NS	NS
	4-CHLORO-3-METHYLPHENOL	ug/1	NS	NS	- NS	- NS	ND	NS -	NS
	2.4,6-TRICHLOROPHENOL	ug/l	NS	NS	NS	NS	ND	NS.	NS
	2.4-DINITROPHENOL	ug/l	NS	NS	NS T	NS	ND	NS	NS .
	4-NITROPHENOL	ug/1	NS	NS	NS	NS	ND	NS	NS
	2-METHYL-4.6-DINITROPHENOL	ug/1	NS	NS	NS	NS	ND	NS	NS
	PENTACHLOROPHENOL	ug/1	NS	NS	NS	NS	ND	NS	NS

CATEGORY	DADAMETED		DATE 04/10/85	DATE 06/26/85	DATE 10/15/85	DATE 01/23/86	DATE 04/24/86	DATE 07/29/86	DATE 10/10/86
CHILDON	PARAMETER	UNITS	CONCENTRATION						
BASE/NEUTRALS									
	N-NITROSODIMETHYLAMINE	ug/1	ND	ND	ND	ND	ND	NS	NS
	BIS(2-CHLOROETHYL)ETHER	ug/l	ND						
	1,3-DICHLOROBENZENE	ug/1	ND						
	1,4-DICHLOROBENZENE	ug/l	ND	ND .	ND	NO	. ND	ND	ND
	1,2-DICHLOROBENZENE	ug/l	ND	ND	ND	ND	ND	ND	NO
	BIS(2-CHLOROISOPROPYL)EYHER	ug/1	ND	ND	ND	ND	ND	NO NO	ND
	HEXACHLOROETHANE	ug/l	ND	ND	ND	· ND	· ND	ND	ND ND
	N-NITROSODI-N-PROPYLAMINE	ug/l	ND	ND	ND	ND	ND	ND ND	
	NITROBENZENE	ug/1	ND	ND	ND	NĐ	ND	ND ND	NO NO
	ISOPHORONE	ug/l	ND	ND	ND	ND	ND	ND ON	ND
	BIS(2-CHLOROETHOXY)METHANE	ug/1	ND	ND	ND	ND	ND		NO NO
	1,2,4-TRICHLOROBENZENE	ug/l	ND	ND	· NO	ND	ND ND	. ND-	ND
	NAPHTHALENE	ug/1	<5.0000	<5.0000	ND	ND	ND.	ND	ND
	HEXACHLOROBUTADIENE	ug/l	ND	ND	ND	ND	ND ND	ND	ND
	HEXACHLOROCYCLOPENTADIENE	ug/]	ND	ND -	ND	- ND		ND	ND
	2-CHLORONAPHTHALENE	ug/l	ND	ND	ND	ND ND	ND	ND	ND
	ACENAPHTHYLENE	ug/l	ND	ND ND	ND ND		ND	ND	ND
	DIMETHYL PHTHALATE	ug/l	NO	ND	ND	ND NO	ND	ND	ND
	2,6-DINITROTOLUENE	ug/l	ND ND	ND ND		ND	ND	ND	ND
-	ACENAPHTHENE	ug/l	ND	ND 84.0000	ND	ND "	ND	ND	NO
	2,4-DINITROTOLUENE	•	ND						
	FLUORENE	ug/l ug/l	ND		ND	ND	ND	ND	ND
	DIETHYL PHTHALATE	ug/l	ND	<5.0000 ND	ND	ND	ND	ND	ND
	4-CHLOROPHENYL PHENYL ETHER	•	ND		ND	ND	ND	ND	ND
	N-NITROSODIPHENYLAMINE	ug/1		ND	ND	ND	ND	ND	ND
	1,2-DIPHENYLHYDRAZINE	ug/l	ND	ND	ND	ND	ND .	NU	ND
	4-BROMOPHENYL PHENYL ETHER	ug/1	ND	ND	ND	ND	ND	NS	ND
	HEXACHLOROBENZENE	ug/]	ND	ND	ND	ND	ВN	ND	ND
	PHENANTHRENE	ug/1	ND						
	ANTHRACENE	ug/]	ND	13.0000	ŅD	ND	ND	ND	NU
		ug/l	NO	NO	10.3000	ND	ND	ND	ND
	DI-N-BUTYL PHTHALATE	ug/1	ND						
	FLUORANTHENE BENZIDINE	ug/1 .	<5.0000	ND	21.0000	NO	ND .	NS	ND
	PYRENE	ug/l	ND	ND	ND	ND	ND	ND	NS
		ug/l	<5.0000	9.5000	11.0000	ND	NO	ND	ND
	BUTYL BENZYL PHTHALATE	ug/}	ND	ND	ND	ND	ND	ŅD	ND
	BENIO(A)ANTHRACENE	ug/l	<10.0000	14.0000	<10.0000	ND	ND	ND	ND
	CHRYSENE	ug/l	<10.0000	NO	<10.0000	ND	ND	ND	ND
	3,3'-DICHLOROBENZIDINE	ug/l	ND	ND	ND	ND	ND.	ND	ND
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/l	<5.0000	6.7000	ND	<5.0000	ND	ND	ND
	DI-N-OCTYL PHTHALATE	ug/l	ND						
	BENZO(B)FLUORANTHENE	ug/1	ND						
	BENZO(K)FLUORANTHENE	ug/l	NO	ND	ND	ND	ND	ND	ND
	BENZO(A)PYRENE	ug/l	ND	ND	ND	ND	ND	ND	NÚ
	INDENO(1,2,3-C,D)PYRENE	ug/l	ND	ND	ND	ND	ND .	NO	ND
	DIBENZO(A,H)ANTHRACENE	ug/l	ND	ND	ND	ND	.ND	ND	ND
	BENZO(G,H,I)PERYLENE	ug/l	ND	ND	ND	ND 1	ND	ND	ND
	2,3,7,8-TETRACHLORODIBENZO-P-D	ug/l	ND	ND	ND	ND	. ND	NS	ND

CATEGORY	PARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 10/15/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 CONCENTRATION
BASE/NEUTRALS									TONCENTIAN TON
	N-NITROSODIMETHYLAMINE	ug/1	ND	ND	ND	ND	ND	NC	1
	BIS(2-CHLOROETHYL)ETHER	ug/l	ND	33.0000	ND ND	ND	ND	NS	NS
	1,3-DICHLOROBENZENE	ug/l	ND	ND	ND	ND	ND	ND	15.0000
	1,4-DICHLOROBENZENE	ug/1	ND	ND	ND	ND	ND	ND	ND
	1,2-DICHLOROBENZENE	ug/1	ND	ND	ND	ND	ND	ND	ND
•	BIS(2-CHLOROISOPROPYL)EYHER	ug/1	ND	ND	. ND	ND	ND	ND	ND
	HEXACHLOROETHANE	ug/1	ND	ND	ND	83.0000	ND ND	ND	ND
	N-NITROSODI-N-PROPYLAMINE	ug/l	ND	ND	ND	ND	ND ND	ND	ND
	NITROBENZENE	ug/l	90.0000	ND	ND		Land Control of the Asset	ND	ND
	ISOPHORONE	ug/l	ND	ND	ND	ND	ND	ND	ND
	BIS(2-CHLOROETHOXY)METHANE	ug/l	15.0000	ND	ND	ND-	ND	ND	ND
	1,2,4-TRICHLOROBENZENE	ug/l	ND	ND	ND	ND	ND	ND	ND
	NAPHTHALENE	ug/1	ND	116.0000		ND	ND	ND	ND
	HEXACHLOROBUTADIENE	ug/l	ND	ND	497.0000	420.0000	339.0000	64.0000	1180.0000
	HEXACHLOROCYCLOPENTADIENE	ug/1	ND	ND	ND	ND	ND	ND	ND
	2-CHLORONAPHTHALENE	ug/1	ND	ND ND	ND	ND	ND	ND	ND
	ACENAPHTHYLENE	ug/1	ND		ND	ND	ND	ND	ND
	DIMETHYL PHTHALATE	ug/1	ND	32.0000	56.0000	22.0000	ND	<7.0000	13.0000
	2,6-DINITROTOLUENE	ug/1	ND ND	ND	ND	ND	ND	NO	ND
	ACENAPHTHENE			ND	ND	ND	10.6000	ND	ND
	2,4-DINITROTOLUENE	ug/l	ND ND	76.0000	15.0000	8.0000	ND	ND	11.0000
	FLUORENE			ND	ND	ND.	ND	ND	ND
	DIETHYL PHTHALATE	ug/l	ND	58.0000	120.0000	45.0000	ND	29.0000	35.0000
	4-CHLOROPHENYL PHENYL ETHER	ug/1	ND	ND	ND	ND	ND	ND	ND
	N-NITROSODIPHENYLAMINE	ug/l	ND	ND	ND	ND	ND	ND	ND
	1.2-DIPHENYLHYDRAZINE	ug/1	ND	ND	ND	ND	ND	ND	ND
	4-BROMOPHENYL PHENYL ETHER	ug/l	ND	ND	ND	ND	. ND	NS	ND
	HEXACHLOROBENZENE	ug/l	ND	ND	ND	ND	ND	ND	ND
	PHENANTHRENE	ug/l	ND	ND	ND	ND	ND	ND	ND
	ANTHRACENE	ug/l	ND	14.0000	347.0000	36.0000	ND	93.0000	91.0000
		ug/1	ND	ND	ND	ND	ND	ND	12.0000
	DI-N-BUTYL PHTHALATE FLUORANTHENE	ug/l	ND	ND	ND	ND	ND	ND	ND
	BENZIDINE	ug/1	ND	ND	191.0000	12.0000	ND	31.0000	28.0000
	PYRENE	ug/1	ND	ND	ND	ND	ND	NS	NS
		ug/l	ND	6.5000	126.0000	9.0000	ND	20.0000	19.0000
	BUTYL BENZYL PHTHALATE	ug/1	ND	ND	ND	ND	ND	ND	ND
	BENZO(A)ANTHRACENE	ug/1	ND	25.0000	ND	ND	ND	ND	ND
	CHRYSENE	ug/l	NO	ND	ND	ND	ND	ND	ND
	3,3'-DICHLOROBENZIDINE	ug/1	ND	ND	ND	ND	ND	ND	ND
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/l	ND	ND	ND	<5.0000	ND	ND	ND
	DI-N-OCTYL PHTHALATE	ug/1	ND	ND	ND	ND	NO -	ND	ND
	BENZO(B)FLUORANTHENE	ug/1	ND	ND	<32.0000	<25.0000	ND	ND	ND
	BENZO(K)FLUORANTHENE	ug/1	ND	ND	<32.0000	ND	ND	ND	ND
	BENZO(A)PYRENE	ug/1	ND	ND	96.0000	<25.0000	ND	ND	ND
	INDENO(1,2,3-C,D)PYRENE	ug/l	ND	ND .	ND	ND	ND	ND ·	ND
	DIBENZO(A, H)ANTHRACENE	ug/l	ND	ND	ND	ND	ND	ND	ND
	BENZO(G,H,I)PERYLENE	ug/1	ND	ND	ND	ND	. ND	ND	ND
	2,3,7,8-TETRACHLORODIBENZO-P-D	ug/1	ND	ND	ND	ND	ND	NS	ND

WELL NUMBER . W-2DUP

			DATE 04/24/86
CATEGORY	PARAMETER	UNITS	CONCENTRATION
ASE/NEUTRALS			
,	N-NITROSODIMETHYLAMINE	ug/1	ND .
	BIS(2-CHLOROETHYL)ETHER	ug/l	ND
	1,3-DICHLOROBENZENE	ug/l	ND
	1,4-DICHLOROBENZENE	ug/1	ND
	1,2-DICHLOROBENZENE	ug/1	ND
	BIS(2-CHLOROISOPROPYL)EYHER	ug/l	ND
	HEXACHLOROETHANE	ug/1	ND
	N-NITROSODI-N-PROPYLAMINE	ug/1	ND
	NITROBENZENE	ug/1	ND
-	ISOPHORONE	ug/1	ND ND
	8IS(2-CHLOROETHOXY)METHANE	ug/l	ND
	1,2,4-TRICHLOROBENZENE	ug/l	ND
	NAPHTHALENE	ug/1	517.0000
	HEXACHLOROBUTADIENE	ug/1	ND
	HEXACHLOROCYCLOPENTADIENE	ug/l	ND
	2-CHLORONAPHTHALENE	ug/l	ND
	ACENAPHTHYLENE	ug/1	ND
	DIMETHYL PHTHALATE	ug/1	ND
	2,6-DINITROTOLUENE	ug/1	17.0000
	ACENAPHTHENE	ug/l	ND
	2,4-DINITROTOLUENE	ug/1	ND
	FLUORENE	ug/1	ND
	DIETHYL PHTHALATE	ug/l	ND
	4-CHLOROPHENYL PHENYL ETHER	ug/l	ND
	N-NITROSODIPHENYLAMINE	ug/1	ND
	1,2-DIPHENYLHYDRAZINE	ug/l	ND
	4-8ROMOPHENYL PHENYL ETHER	uq/l	ND
	HEXACHLORO8ENZENE	ug/l	ND
	PHENANTHRENE	ug/l	19.5000
	ANTHRACENE	ug/l	NO
	DI-N-BUTYL PHTHALATE	ug/l	16.7000
	FLUORANTHENE	ug/1	ND
•	BENZIDINE	ug/1	ND
	PYRENE	ug/l	ND
•	BUTYL BENZYL PHTHALATE	ug/ì	ND
	BENZO(A)ANTHRACENE	ug/1	ND
	CHRYSENE	ug/l	ND
	3,3'-DICHLOROBENZIDINE	ug/l	ND
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/1	ND
	DI-N-OCTYL PHTHALATE	ug/1	ND
	BENZO(B)FLUORANTHENE	ug/]	ND
	BENZO(K)FLUORANTHENE	ug/l	ND
	BENZO(A)PYRENE	ug/1	ND
	INDENO(1,2,3-C,D)PYRENE	ug/l	ND
	DIBENZO(A, H) ANTHRACENE	ug/l	ND
	BENZO(G,H,I)PERYLENE	ug/}	ND
	2,3,7,8-TETRACHLORODIBENZO-P-D		ND

CATEOR PARMETER Maria CALIFOR SUATE MARIA CONCENTATION CONCE										
ALTERIORY PARMATER UNITS CONCENTRATION				DATE	DATE	DATE	DATE.	DATE	DATE	DATE
SASE/NEUTRALE PARAMETER Web Concentration Concentrat				04/10/85	06/26/85	10/15/85	01/23/86	04/24/86	07/29/86	10/10/86
## NT 16500 JMC PITTLAN SINE ## SIS (2 -C-LIAGOS PITLS) ET SINE ## SIS (2 -C-LIAGOS PITLS) ET SINE ## SIS (2 -C-LIAGOS PITLS) ET SINE ## SIS (3 -C-LIAGOS PITLS) ET SINE ## SIS (3 -C-LIAGOS PITLS) ET SINE ## SIS (3 -C-LIAGOS PITLS) ET SINE ## SIS (2 -C-LIAGOS PITLS) ET SINE ## SIS (3 -C-LIAGOS PITLS) ET SINE ## SIS (2 -C-LIAGOS PITLS) ET SINE ## SIS (3 -C-LIAGOS PITLS) ET SINE	CATEGORY	PARAMETER	UNITS	CONCENTRATION						
SIS (2CHLOROFIENT)_ETHER	BASE/NEUTRALS									•
SIS (2CHLOROFIENT)_ETHER		N-NITROSODIMETHYLAMINE	ua/1	ND	ND	חא	חא	ND	NC	NC
1.3-DICHLOROSERIZHE Ug/1 ND										
1.4-DICHLORGERIZNE 1.7-DICHLORGERIZNE 1.7-DI		•	•							
1, 2-DICHORDEREVEE U9/1 ND										
BISC-CHILDROISOPROPYLIPTER			•							
HEXACH LOROE TRANE										
N-NITROGOLH-PROPYLANINE U9/1 ND										
NITOGREFIZER Ug/1 ND										
ISOPHORDE			•							
BISC2-CHIOROETHOXYMETHANE										
1.2.4 - FISICHLOROBERZENE Ug/1 ND		-	•							
MAPITHALENE		•								
HEXACHLORGOUTADIENE										
HEXACHLOROCYCLOPENTADIENE										
2-CHLOROMAPHTHALENE 9/1 ND			•							
ACEMAPHTHYLENE Ug/1 ND ND ND ND ND ND ND ND ND N	•		•			•				
DIMETHYL PRITHALATE			•							
2,6-DINTROTOLUENE U9/1 ND		·· -	•							
ACENAPHTHENE Ug/1 ND			•							
2.4-DINITROTOLUENE Ug/1 ND			-							
FLUORENE Ug/1 ND			-					-		
DIETHYL PHTHALATE			•							
4-CHLOROPHENYL PHENYL ETHER Ug/1 ND			-							
N-NITROSODIPHENYLAMINE Ug/1 ND			•			•				
1,2-DIPHENYLHYDRAZINE Ug/1 ND ND ND ND ND NS ND ND ND NS ND 4-BROMOPHENYL PHENYL ETHER Ug/1 ND			-							ND
4-BROMOPHENYL PHENYL ETHER UG/1 ND			•							
HEXACHLOROBENZENE Ug/1 NO ND		•	-							ND
PHENANTHRENE			• •							
ANTHRACENE			•						ND	ND
DI-N-BUTYL PHTHALATE			•						ND	ND
FLUGRANTHENE			•					ND	ND	ND
BENZIDINE								ND	ND	ND
PYRENE									NS	ND
BUTYL BENZYL PHTHALATE U9/1 ND			0-	··-				ND	ND	NS
SENZO(A)ANTHRACENE			•					NO	ND	ND
CHRYSENE			•					NO	ND	ND
3,3'-QICHLOROBENZIDINE Ug/] ND NO ND			•			•		ND	ND	ND
BIS(2=ETHYLHEXYL)PHTHALATE			-				ND	ИD	ND	ND
DI-N-OCTYL PHTHALATE			-					ND	ND	ND
BENZO(B)FLUORANTHENE Ug/1 ND		•	•-				<5.0000	. ND	. ND	ND
BENZO(K)FLUORANTHENE Ug/1 ND			•				ND	ND	ND	ND
BENZO(A)PYRENE Ug/1 ND		· •	•				ND	ND	ND	ND
INDENO(1,2,3-C,D)PYRENE			•				ND	ND	ND	ND
DIBENZO(A, H) ANTHRACENE							ND	ŃĐ	ND	ND
BENZO(G,H,I)PERYLENE ug/l ND NO ND ND ND ND NO	•		•				ND	NO	ND	ND
2 2 2 0 TETRACULORODOROCHZO D 0/2 NO NO			U ,				ND	· ND	· ND	ND
Z,J,I,8-IEIKACHLOKOUIBENZO-P-D ug/I ND ND ND ND NS NO			•						ND	ND
		2,5,1,8-TETRACHLORUUTBENZO-P-D	ug/ l	ND	ND	ЙD	ND	ND	NS	ND

M-3DUP

CATEGORY PARAMETER UNITS CONCENTRATION BASE/NEUTRALS N-NITROSODIMETHYLAMINE Ug/1 ND BIS(2-CHLOROETHYL)ETHER Ug/1 ND 1,3-DICHLOROBENZENE Ug/1 ND 1,4-DICHLOROBENZENE Ug/1 ND 1,2-DICHLOROBENZENE Ug/1 ND BIS(2-CHLOROISOPROPYL)EYHER Ug/1 ND HEXACHLOROETHANE Ug/1 ND N-NITROSODI-N-PROPYLAMINE Ug/1 ND ISOPHORONE Ug/1 ND BIS(2-CHLOROETHOXY)METHANE Ug/1 ND 1,2,4-TRICHLOROBENZENE Ug/1 ND 1,2,4-TRICHLOROBENZENE Ug/1 ND HEXACHLOROBUTADIENE Ug/1 ND HEXACHLOROBUTADIENE Ug/1 ND HEXACHLOROCYCLOPENTADIENE Ug/1 ND C2-CHLORONAPHTHALENE Ug/1 ND DIMETHYL PHTHALATE Ug/1 ND DIMETHYL PHTHALATE Ug/1 ND 2,6-DINITROTOLUENE Ug/1 ND ACENAPHTHYLENE Ug/1 ND C2,4-DINITROTOLUENE Ug/1 ND DIMETHYL PHTHALATE Ug/1 ND C2,4-DINITROTOLUENE Ug/1 ND DIETHYL PHTHALATE Ug/1 ND ACENAPHTHENE Ug/1 ND C2,4-DINITROTOLUENE Ug/1 ND C3,4-DINITROTOLUENE Ug/1 ND C4-CHLOROPHENYL PHENYL ETHER Ug/1 ND DIETHYL PHTHALATE Ug/1 ND C4-CHLOROPHENYL PHENYL ETHER Ug/1 ND C4-BROMOPHENYL PHENYL ETHER UG/1 ND C4-BROMO		,		DATE 10/15/85
N-NITROSODIMETHYLAMINE Ug/1 ND 8IS(2-CHLOROETHYL)ETHER Ug/1 ND 1,3-DICHLOROBENZENE Ug/1 ND 1,4-DICHLOROBENZENE Ug/1 ND 1,2-DICHLOROBENZENE Ug/1 ND BIS(2-CHLOROISOPROPYL)EYHER Ug/1 ND HEXACHLOROETHANE Ug/1 ND N-NITROSODI-N-PROPYLAMINE Ug/1 ND NITROBENZENE Ug/1 ND 1SOPHORONE Ug/1 ND 6IS(2-CHLOROETHOXY)METHANE Ug/1 ND 1SOPHORONE Ug/1 ND 1,2,4-TRICHLOROBENZENE Ug/1 ND 1,2,4-TRICHLOROBENZENE Ug/1 ND HEXACHLOROETHOXY)METHANE Ug/1 ND HEXACHLOROCYCLOPENTADIENE Ug/1 ND HEXACHLOROCYCLOPENTADIENE Ug/1 ND 2-CHLORONAPHTHALENE Ug/1 ND ACENAPHTHYLENE Ug/1 ND DIMETHYL PHTHALATE Ug/1 ND OIMETHYL PHTHALATE Ug/1 ND ACENAPHTHENE Ug/1 ND ACENAPHTHENE Ug/1 ND 1,2-DINITROTOLUENE Ug/1 ND DIETHYL PHTHALATE Ug/1 ND ACENAPHTHENE Ug/1 ND ACENAPHTHENE Ug/1 ND 1,2-DIPHENYL PHENYL ETHER Ug/1 ND N-NITROSODIPHENYL MINE Ug/1 ND N-NITROSODIPHENYL MINE Ug/1 ND 1,2-DIPHENYL HYDRAZINE Ug/1 ND HEXACHLOROBENZENE Ug/1 ND HEXACHLOROBENZENE Ug/1 ND HEXACHLOROBENZENE Ug/1 ND ANTHRACENE Ug/1 ND ANTHRACENE Ug/1 ND ANTHRACENE Ug/1 ND DI-N-BUTYL PHTHALATE Ug/1 ND ANTHRACENE Ug/1 ND FLUORANTHENE Ug/1 ND	CATEGORY	PARAMETER	UNITS	CONCENTRATION
N-NITROSODIMETHYLAMINE Ug/1 ND 8IS(2-CHLOROETHYL)ETHER Ug/1 ND 1,3-DICHLOROBENZENE Ug/1 ND 1,4-DICHLOROBENZENE Ug/1 ND 1,2-DICHLOROBENZENE Ug/1 ND BIS(2-CHLOROISOPROPYL)EYHER Ug/1 ND HEXACHLOROETHANE Ug/1 ND N-NITROSODI-N-PROPYLAMINE Ug/1 ND NITROBENZENE Ug/1 ND 1SOPHORONE Ug/1 ND 6IS(2-CHLOROETHOXY)METHANE Ug/1 ND 1SOPHORONE Ug/1 ND 1,2,4-TRICHLOROBENZENE Ug/1 ND 1,2,4-TRICHLOROBENZENE Ug/1 ND HEXACHLOROETHOXY)METHANE Ug/1 ND HEXACHLOROCYCLOPENTADIENE Ug/1 ND HEXACHLOROCYCLOPENTADIENE Ug/1 ND 2-CHLORONAPHTHALENE Ug/1 ND ACENAPHTHYLENE Ug/1 ND DIMETHYL PHTHALATE Ug/1 ND OIMETHYL PHTHALATE Ug/1 ND ACENAPHTHENE Ug/1 ND ACENAPHTHENE Ug/1 ND 1,2-DINITROTOLUENE Ug/1 ND DIETHYL PHTHALATE Ug/1 ND ACENAPHTHENE Ug/1 ND ACENAPHTHENE Ug/1 ND 1,2-DIPHENYL PHENYL ETHER Ug/1 ND N-NITROSODIPHENYL MINE Ug/1 ND N-NITROSODIPHENYL MINE Ug/1 ND 1,2-DIPHENYL HYDRAZINE Ug/1 ND HEXACHLOROBENZENE Ug/1 ND HEXACHLOROBENZENE Ug/1 ND HEXACHLOROBENZENE Ug/1 ND ANTHRACENE Ug/1 ND ANTHRACENE Ug/1 ND ANTHRACENE Ug/1 ND DI-N-BUTYL PHTHALATE Ug/1 ND ANTHRACENE Ug/1 ND FLUORANTHENE Ug/1 ND	BASE/NEUTRALS	•		
## ## ## ## ## ## ## ## ## ## ## ## ##		N-NITROSODIMETHYLAMINE	ua/1	ND
1,3-DICHLOROBENZENE Ug/1 ND 1,4-DICHLOROBENZENE Ug/1 ND 1,2-DICHLOROBENZENE Ug/1 ND BIS(2-CHLOROISOPROPYL)EYHER Ug/1 ND HEXACHLOROETHANE Ug/1 ND N-NITROSODI-N-PROPYLAMINE Ug/1 ND NITROBENZENE Ug/1 ND ISOPHORONE Ug/1 ND BIS(2-CHLOROETHOXY)METHANE Ug/1 ND 1,2,4-TRICHLOROBENZENE Ug/1 ND 1,2,4-TRICHLOROBENZENE Ug/1 ND HEXACHLOROBUTADIENE Ug/1 ND HEXACHLOROCYCLOPENTADIENE Ug/1 ND 2-CHLOROMAPHTHALENE Ug/1 ND ACENAPHTHYLENE Ug/1 ND DIMETHYL PHTHALATE Ug/1 ND OIMETHYL PHTHALATE Ug/1 ND 2,6-DINITROTOLUENE Ug/1 ND ACENAPHTHENE Ug/1 ND ACENAPHTHENE Ug/1 ND DIFTHYL PHTHALATE Ug/1 ND 4-CHLOROPHENYL PHENYL ETHER Ug/1 ND DIETHYL PHTHALATE Ug/1 ND DIETHYL PHTHALATE Ug/1 ND ACENAPHTHENE Ug/1 ND DIETHYL PHTHALATE Ug/1 ND N-NITROSODIPHENYL PHENYL ETHER Ug/1 ND HEXACHLOROBENZENE Ug/1 ND HEXACHLOROBENZENE Ug/1 ND ANTHRACENE Ug/1 ND DI-N-BUTYL PHTHALATE Ug/1 ND DI-N-BUTYL PHTHALATE Ug/1 ND PHENANTHRENE Ug/1 ND ANTHRACENE Ug/1 ND FLUORANTHENE Ug/1 ND			•	
1,4-DICHLOROBENZENE Ug/1 ND 1,2-DICHLOROBENZENE Ug/1 ND BIS(2-CHLOROISOPROPYL)EYHER Ug/1 ND HEXACHLOROETHANE Ug/1 ND N-NITROSODI-N-PROPYLAMINE Ug/1 ND NITROBENZENE Ug/1 ND ISOPHORONE Ug/1 ND ISOPHORONE Ug/1 ND ISOPHORONE Ug/1 ND 1,2,4-TRICHLOROBENZENE Ug/1 ND NAPHTHALENE Ug/1 ND HEXACHLOROBUTADIENE Ug/1 ND HEXACHLOROCYCLOPENTADIENE Ug/1 ND 2-CHLOROMAPHTHALENE Ug/1 ND ACENAPHTYLENE Ug/1 ND DIMETHYL PHTHALATE Ug/1 ND 2,6-DINITROTOLUENE Ug/1 ND 2,4-DINITROTOLUENE Ug/1 ND ECENAPHTHENE Ug/1 ND DIETHYL PHTHALATE Ug/1 ND 1,2-OLPHENYL PHENYL ETHER Ug/1 ND N-NITROSODIPHENYL MINE Ug/1 ND N-NITROSODIPHENYLAMINE Ug/1 ND 1,2-OLPHENYL PHENYL ETHER Ug/1 ND 1,2-OLPHENYL PHENYL ETHER Ug/1 ND HEXACHLOROBENZENE Ug/1 ND ANTHRACENE Ug/1 ND PHEMANTHRENE Ug/1 ND FLUORANTHENE Ug/1 ND			•	
1,2-DICHLOROBENZENE Ug/] ND BIS(2-CHLOROISOPROPYL)EYHER Ug/] ND HEXACHLOROETHANE Ug/] ND N-NITROSODI-N-PROPYLAMINE Ug/] ND NITROBENZENE Ug/] ND ISOPHORONE Ug/] ND BIS(2-CHLOROETHOXY)METHANE Ug/] ND NAPHTHALENE Ug/] ND NAPHTHALENE Ug/] ND HEXACHLOROBUTADIENE Ug/] ND HEXACHLOROCYCLOPENTADIENE Ug/] ND C-CHLOROMAPHTHALENE Ug/] ND ACENAPHTYLENE Ug/] ND DIMETHYL PHTHALATE Ug/] ND ACENAPHTHENE Ug/] ND C,6-DINITROTOLUENE Ug/] ND C,4-DINITROTOLUENE Ug/] ND DIETHYL PHTHALATE Ug/] ND C,4-DINITROTOLUENE Ug/] ND DIETHYL PHTHALATE Ug/] ND C,4-DINITROTOLUENE Ug/] ND C,4-DINITROTOLUENE Ug/] ND C,4-DINITROTOLUENE Ug/] ND C,4-DINITROTOLUENE Ug/] ND DIETHYL PHTHALATE Ug/] ND C,4-DINITROTOLUENE Ug/] ND C,4-DINITROTOLUENE Ug/] ND C,4-DINITROTOLUENE Ug/] ND DIETHYL PHTHALATE Ug/] ND C,4-DINITROTOLUENE Ug/] ND C,4-D			•	
BIS(2-CHLOROISOPROPYL)EYHER Ug/1 ND HEXACHLOROETHANE Ug/1 ND N-NITROSODI-N-PROPYLAMINE Ug/1 ND NITROBENZENE Ug/1 ND ISOPHORONE Ug/1 ND BIS(2-CHLOROETHOXY)METHANE Ug/1 ND NAPHTHALENE Ug/1 ND HEXACHLOROBUTADIENE Ug/1 ND HEXACHLOROBUTADIENE Ug/1 ND C-CHLORONAPHTHALENE Ug/1 ND ACENAPHTHYLENE Ug/1 ND DIMETHYL PHTHALATE Ug/1 ND 2,6-DINITROTOLUENE Ug/1 ND 2,4-DINITROTOLUENE Ug/1 ND ELORENE Ug/1 ND DIETHYL PHTHALATE Ug/1 ND ACENAPHTHENE Ug/1 ND C-CHLORONAPHTHALENE Ug/1 ND ACENAPHTHENE Ug/1 ND ACENAPHTHENE Ug/1 ND ACENAPHTHENE Ug/1 ND 1,2-DINITROTOLUENE Ug/1 ND DIETHYL PHTHALATE Ug/1 ND ACENAPHTHENE Ug/1 ND DIETHYL PHTHALATE Ug/1 ND A-CHLOROPHENYL PHENYL ETHER Ug/1 ND A-CHLOROPHENYL PHENYL ETHER Ug/1 ND N-NITROSODIPHENYLAMINE Ug/1 ND A-BROMOPHENYL PHENYL ETHER Ug/1 ND HEXACHLOROBENZENE Ug/1 ND HEXACHLOROBENZENE Ug/1 ND ANTHRACENE Ug/1 ND DI-N-BUTYL PHTHALATE Ug/1 ND FLUORANTHENE Ug/1 ND			•	
NEXACHLOROETHANE			•	**-
N-NITROSODI-N-PROPYLAMINE ug/1 ND			•	***
NITROBENZENE		N-NITROSODI-N-PROPYLAMINE	•	***
ISOPHORONE			•	***
BIS(2-CHLOROETHOXY)METHANE	-	ISOPHORONE	•	
1,2,4-TRICHLOROBENIENE		BIS(2-CHLOROETHOXY)METHANE	•	`
NAPHTHALENE Ug/T ND HEXACHLOROBUTADIENE Ug/T ND HEXACHLOROCYCLOPENTADIENE Ug/T ND 2-CHLOROMAPHTHALENE Ug/T ND ACENAPHTHYLENE Ug/T ND DIMETHYL PHTHALATE Ug/T ND 2,6-DINITROTOLUENE Ug/T ND ACENAPHTHENE Ug/T ND 2,4-DINITROTOLUENE Ug/T ND FLUORENE Ug/T ND DIETHYL PHTHALATE Ug/T ND DIETHYL PHTHALATE Ug/T ND A-CHLOROPHENYL PHENYL ETHER Ug/T ND N-NITROSODIPHENYLMMINE Ug/T ND 1,2-DIPHENYLHYDAZINE Ug/T ND 4-BROMOPHENYL PHENYL ETHER Ug/T ND HEXACHLOROBENZENE Ug/T ND HEXACHLOROBENZENE Ug/T ND A-BROMOPHENYL PHENYL ETHER Ug/T ND HEXACHLOROBENZENE Ug/T ND PHEMANTHRENE Ug/T ND ANTHRACENE Ug/T ND ANTHRACENE Ug/T ND DI-N-BUTYL PHTHALATE Ug/T ND FLUORANTHENE Ug/T ND			•	
HEXACHLOROBUTADIENE ug/1 ND HEXACHLOROCYCLOPENTADIENE ug/1 ND 2-CHLORONAPHTHALENE ug/1 ND ACENAPHTHYLENE ug/1 ND DIMETHYL PHTHALATE ug/1 ND 2,6-DINITROTOLUENE ug/1 ND ACENAPHTHENE ug/1 ND 2,4-DINITROTOLUENE ug/1 ND FLUORENE ug/1 ND DIETHYL PHTHALATE ug/1 ND DIETHYL PHTHALATE ug/1 ND A-CHLOROPHENYL PHENYL ETHER ug/1 ND N-NITROSODIPHENYLAMINE ug/1 ND 1,2-DIPHENYLHYDAZINE ug/1 ND 4-BROMOPHENYL PHENYL ETHER ug/1 ND HEXACHLOROBENZENE ug/1 ND PHEMANTHRENE ug/1 ND PHEMANTHRENE ug/1 ND ANTHRACENE ug/1 ND PHEMANTHRENE ug/1 ND PHEMANTHRENE ug/1 ND PHENACHLOROBENZENE ug/1 ND PHEMANTHRENE ug/1 ND PHENACHLOROBENZENE ug/1 ND PHEMANTHRENE ug/1 ND PHENACHLOROBENZENE ug/1 ND PHEMANTHRENE ug/1 ND PHEMANTHRENE ug/1 ND PHENACHLOROBENZENE ug/1 ND PHEMANTHRENE ug/1 ND			•	· -
HEXACHLOROCYCLOPENTADIENE Ug/1 ND 2-CHLORONAPHTHALENE Ug/1 ND ACENAPHTHYLENE Ug/1 ND DIMETHYL PHTHALATE Ug/1 ND 2,6-DINITROTOLUENE Ug/1 ND ACENAPHTHENE Ug/1 ND 2,4-DINITROTOLUENE Ug/1 ND FLUORENE Ug/1 ND DIETHYL PHTHALATE Ug/1 ND A-CHLOROPHENYL PHENYL ETHER Ug/1 ND N-NITROSODIPHENYLAMINE Ug/1 ND 1,2-DIPHENYLHYDRAZINE Ug/1 ND 4-BROMOPHENYL PHENYL ETHER Ug/1 ND 4-BROMOPHENYL PHENYL ETHER Ug/1 ND HEXACHLOROBENZENE Ug/1 ND PHENANTHRENE Ug/1 ND ANTHRACENE Ug/1 ND ANTHRACENE Ug/1 ND DI-N-BUTYL PHTHALATE Ug/1 ND FLUORANTHENE Ug/1 ND		· · · · · · · · · · · · · · · · · · ·	•	
2-CHLORONAPHTHALENE ug/1 ND ACENAPHTHYLENE ug/1 ND DIMETHYL PHTHALATE ug/1 ND 2,6-DINITROTOLUENE ug/1 ND ACENAPHTHENE ug/1 ND 2,4-DINITROTOLUENE ug/1 ND FLUORENE ug/1 ND DIETHYL PHTHALATE ug/1 ND A-CHLOROPHENYL PHENYL ETHER ug/1 ND N-NITROSODIPHENYLAMINE ug/1 ND 1,2-DIPHENYLHYDRAZINE ug/1 ND 4-BROMOPHENYL PHENYL ETHER ug/1 ND 4-BROMOPHENYL PHENYL ETHER ug/1 ND HEXACHLOROBENZENE ug/1 ND PHENANTHRENE ug/1 ND PHENANTHRENE ug/1 ND ANTHRACENE ug/1 ND DI-N-BUTYL PHTHALATE ug/1 ND FLUORANTHENE ug/1 ND			•	
ACENAPHTHYLENE	•			
DIMETHYL PHTHALATE ug/1 ND			٠.	
2,6-DINITROTOLUENE ug/1 ND ACENAPHTHENE ug/1 NO 2,4-DINITROTOLUENE ug/1 ND FLUORENE ug/1 ND DIETHYL PHTHALATE ug/1 ND 4-CHLOROPHENYL PHENYL ETHER ug/1 ND N-NITROSODIPHENYLAMINE ug/1 ND 1,2-DIPHENYLHYDAZINE ug/1 ND 4-BROMOPHENYL PHENYL ETHER ug/1 ND HEXACHLOROBENZENE ug/1 ND PHENANTHRENE ug/1 ND PHENANTHRENE ug/1 ND ANTHRACENE ug/1 ND ANTHRACENE ug/1 ND DI-N-BUTYL PHTHALATE ug/1 ND FLUORANTHENE ug/1 ND		DIMETHYL PHTHALATE	-	
ACENAPHTHENE			•	
2,4-DINITROTOLUENE ug/1 ND FLUORENE ug/1 ND DIETHYL PHTHALATE ug/1 ND 4-CHLOROPHENYL PHENYL ETHER ug/1 ND N-NITROSODIPHENYLMMINE ug/1 ND 1,2-DIPHENYLHYDAZINE ug/1 ND 4-BROMOPHENYL PHENYL ETHER ug/1 ND HEXACHLOROBENZENE ug/1 ND PHENANTHRENE ug/1 ND ANTHRACENE ug/1 ND ANTHRACENE ug/1 ND DI-N-BUTYL PHTHALATE ug/1 ND FLUORANTHENE ug/1 ND			•	
FLUORENE				
DIETHYL PHTHALATE			•	-
4-CHLOROPHENYL PHENYL ETHER Ug/1 ND N-NITROSODIPHENYLAMINE Ug/1 ND 1,2-DIPHENYLHYDRAZINE Ug/1 ND 4-BROMOPHENYL PHENYL ETHER Ug/1 ND HEXACHLOROBENZENE Ug/1 ND PHENANTHRENE Ug/1 ND ANTHRACENE Ug/1 ND DI-N-BUTYL PHTHALATE Ug/1 ND FLUORANTHENE Ug/1 ND		DIETHYL PHTHALATE	•	
N-NITROSODIPHENYLAMINE ug/1 ND 1,2-DIPHENYLHYDRAZINE ug/1 ND 4-BROMOPHENYL PHENYL ETHER ug/1 ND HEXACHLOROBENZENE ug/1 ND PHENANTHRENE ug/1 ND ANTHRACENE ug/1 ND DI-N-BUTYL PHTHALATE ug/1 ND FLUORANTHENE ug/1 ND			-	
1,2-DIPHENYLHYDRAZINE			•	**=
4-BROMOPHENYL PHENYL ETHER Ug/1 ND HEXACHLOROBENZENE Ug/1 ND PHENANTHRENE Ug/1 ND ANTHRACENE Ug/1 ND D1-N-BUTYL PHTHALATE Ug/1 ND FLUORANTHENE Ug/1 ND			-	
HEXACHLOROBENZENE ug/1 ND PHENANTHRENE ug/1 ND ANTHRACENE ug/1 ND D1-N-BUTYL PHTHALATE ug/1 ND FLUORANTHENE ug/1 ND			-	
PHENANTHRENE Ug/1 ND ANTHRACENE Ug/1 ND D1-N-BUTYL PHTHALATE Ug/1 ND FLUORANTHENE Ug/1 ND				·- -
ANTHRACENE ug/1 ND D1-N-BUTYL PHTHALATE ug/1 ND FLUORANTHENE ug/1 ND				**=
D1-N-BUTYL PHYHALATE ug/1 ND Fluoranthene ug/1 nd		ANTHRACENE	•	
FLUORANTHENE ug/1 ND		DI-N-BUTYL PHTHALATE	•	***
-3,			•	
			•	
PYRENE ug/1 ND	•		•	
BUTYL BENZYL PHTHALATE ug/1 ND		BUTYL BENTYL PHTHALATE	-	
8ENZO(A)ANTHRACENE ug/1 NO			•	
CHRYSENE ug/1 ND		• •	•	
3,3'-DICHLOROBENZIDINE ug/1 ND			•	
BIS(2-ETHYLHEXYL)PHTHALATE ug/1 ND			-	
DI-N-OCTYL PHTHALATE ug/1 ND			•	
BENZO(B)FLUORANTHENE ug/1 ND			•	
BENZO(K)FLUORANTHENE ug/1 ND			•-	
BENZO(A)PYRENE · ug/1 ND			•	
INDENO(1,2,3-C,D)PYRENE ug/l ND		, ,		
DIBENZO(A, H) ANTHRACENE ug/1 ND			•	***
BENZO(G,H,I)PERYLENE ug/1 ND			•	
2,3,7,8-TETRACHLORODIBENZO-P-D ug/1 ND				

			DATE	DATE .	DATE	DATE	DATE	DATE	DATE
•			04/10/85	06/26/85	10/15/85	01/23/86	04/24/86	07/29/86	10/10/86
CATEGORY	PARAMETER	UNITS	CONCENTRATION						
BASE/NEUTRALS									
	N-NITROSODIMETHYLAMINE	ug/l	ND 1	ND	ND	ND	ND	NS .	NS
	81S(2-CHLOROETHYL)ETHER	ug/1	ND.	ND	ND	ND	ND	ND	ND.
	1,3-DICHLOROBENZENE	ug/l	ND	ND	ND	ND	ND	ND	ND.
	1,4-DICHLOROBENZENE	ug/l	ND						
	1,2-DICHLOROBENZENE	υg/1	ND						
	BIS(2-CHLOROISOPROPYL)EYHER	ug/l	ND						
	HEXACHLOROETHANE	ug/l	ND	ND	ND	. ND	. ND	ND	ND
	N-NITROSODI-N-PROPYLAMINE	ug/1	ND	ND	ND	NO	ND	. ND	ND
	NITROBENZENE	ug/1	ND	ND	ND	ND	ND ND	ND	ND ND
	ISOPHORONE	ug/l	ND	ND	ND	ND	ND	ND	NO
	BIS(2-CHLOROETHOXY)METHANE	ug/1	ND	ND ND	ND	ND	ND	· ND	ND
	1,2,4-TRICHLOROBENZENE	ug/l	NO	ND	ND	ND ND	ND ND	ND	ND
	NAPHTHALENE	ug/1	<5.0000 ·	ND	ND	ND	ND	ND	NO
	HEXACHLOROBUTADIENE	ug/]	ND	ND	ND	ND	ND	ND	ND ND
	HEXACHLOROCYCLOPENTADIENE	ug/1	ND.	ND -	- ND	ND	ND -	ND	ND
-	2-CHLORONAPHTHALENE	ug/l	ND	NO	ND	ND	ND ·	NO NO	ND
	ACENAPHTHYLENE	ug/1	ND ND	ND	ND	ND	ND	ND	ND
	DIMETHYL PHTHALATE	ug/1	ND	ND	ND	ND	ND	ND .	ND
	2.6-DINITROTOLUENE	ug/l	ND	ND ND	ND	ND ND	ND .	ND .	ND ND
	ACENAPHTHENE	ug/1	ND	ND	ND	NO	ND	ND	NU
	2.4-DINITROTOLUENE	ug/}	ND	ND	ND ND	ND	ND	ND	ND ND
	FLUORENE	ug/l	ND	ND	ND	ND	ND	ND	ND GN
	DIETHYL PHTHALATE	ug/1	ND	ND	ND	ND	ND	ND ND	NO NO
	4-CHLOROPHENYL PHENYL ETHER	ug/l	ND						
	N-NITROSODIPHENYLAMINE	ug/1	ND	ND	ND ND	ND	ND ND	. ND	ND
,	1,2-DIPHENYLHYDRAZINE	ug/l	ND	ND	ND	ND	ND	NS	ND
	4-BROMOPHENYL PHENYL ETHER	ug/1	ND	ND	ND	ND	ND	ND	ND.
	HEXACHLOROBENZENE	ug/l	ND	ND	ND	ND	ND	ND	ND.
	PHENANTHRENE	ug/i	<5.0000	ND	ND	ND	ND ND	ND	ND ND
	ANTHRACENE	ug/l	ND	ND	ND ND	ND	ND	ND	ND
	DI-N-BUTYL PHTHALATE	ug/l	ND						
	FLUORANTHENE	ug/l	<5.0000	ND	ND	ND	ND .	ND	ND ÜD
	BENZIDINE	ug/]	ND	ND	ND	ND	ND	NS NS	NS NS
	PYRENE	ug/1	<5.0000	ND	ND	ND	ND.	ND ND	ND
	BUTYL BENZYL PHTHALATE	ug/1	ND	ND	ND	ND	ND.	ND ND	ND
	BENZO(A)ANTHRACENE	ug/l	ND	ND	ND	ND	ND	NO	ND
•	CHRYSENE	ug/1	ND						
	3,3'-DICHLOROBENZIDINE	ug/1	ND						
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/1	8.5000	5.8000	<5.0000	<5.0000	ND	ND	ND
	DI-N-OCTYL PHTHALATE	ug/l	ND						
	BENZO(B)FLUORANTHENE	ug/1	ND						
	BENZO(K)FLUORANTHENE	ug/l	ND						
	BENZO(A)PYRENE	ug/1	ND	ND	ND	ND	ND	ND ND	ND
	INDENO(1,2,3-C,D)PYRENE	ug/l	ND						
	DIBENZO(A,H)ANTHRACENE	ug/l	ND	ND	ND	ND	ND	· ND	ND
	BENZO(G,H,I)PERYLENE	ug/l	NO	ND	ND	ND	- ND	ND	ND
	'2,3,7,8-TETRACHLORODIBENZO-P-D	ug/l	NĎ	ND	ND	ND	ND	NS:	ND

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CATEGORY	PARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE . 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 CONCENTRATION
BASE/NEUTRALS				•				00.102.111.111.111
DASE/REUIKALS	N-NITROSODIMETHYLAMINE	ug/l	ND	ND .	МВ	ND	NO.	
	BIS(2-CHLOROETHYL)ETHER	ug/1	ND		ND NO	ND	NS	NS
	1,3-DICHLOROBENZENE	ug/l		ND	. ND	ND	ND	ND
	1,4-DICHLOROBENZENE	•	ND ND	ND ND	ND	ND	ND	ND
	1,2-DICHLOROBENZENE	ug/]		ND	NO	ND	ND	NO
•	BIS(2-CHLOROISOPROPYL)EYHER	ug/1	ND NO	ND NO	ND	ND	ND	ND
	HEXACHLOROETHANE	ug/1	NO	ND	. ND	ND	NO	ND
_	N-NITROSODI-N-PROPYLAMINE	ug/l ug/l	ND	ND	ND	ND ·	ND	ND
	NITROSODIAL PROPIENTALE	•	ND ND	ND ND	ND	ND	ND	ND
	ISOPHORONE	ug/1	ND NO	ND	ND	ND	ND	ND
		ug/l	ND ND	ND	ND	ND.	- ND	ND
	BIS(2-CHLOROETHOXY)METHANE	ug/1	ND .	ND ·	ND	ND	ND	ND
•	1,2,4-TRICHLOROBENZENE NAPHTHALENE	ug/l	NO	ND	ND	ND	ND	ND
	HEXACHLOROBUTAD LENE	ug/l	ND	ND	ND	ND	ND	ND
		ug/l	ND	NĐ	NO	ND	ND	NĐ
-	HEXACHLOROCYCLOPENTADIENE	ug/l	ND _	ND	ND	ND -	ND -	ND
	2-CHLORONAPHTHALENE	ug/l	ND	ND	ND	ND	ND	ND
	ACENAPHTHYLENE	ug/l	ND	ND	ND	ND	ND	ND
	DIMETHYL PHTHALATE	ug/l	ND	ND	ND	ND	ND	ND
_	2,6-DINITROTOLUENE	ug/l	ND	ND	ND	ND	OM	ND
•	ACENAPHTHENE	ug/l	ND	ND	ND	ND	ND	NO
	2,4-DINITROTOLUENE	ug/l	ND	ND	ND	ND	ND	ND
	FLUORENE	ug/l	ND	ND	ND	ND	ND	ИĎ
	DIETHYL PHTHALATE	ug/l	ND	ND	ND	ND	ND	ND
	4-CHLOROPHENYL PHENYL ETHER	ug/l	ND	ND	ND	ND	ND	ON
	N-NITROSODIPHENYLAMINE	ug/]	ND	ND	ND	ND	ND	. ND
	1,2-DIPHENYLHYDRAZINE	ug/l	ND	ND	ND	ND	NS	NO
	4-BROMOPHENYL PHENYL ETHER	ug/l	ND	ND	ND	ND	' ND	ND
	HEXACHLOROBENZENE	ug/l	ND	ND	ND	ND	NO	ND
	PHENANTHRENE	ug/l	ND	ND	NO	ND	ND	ND
	ANTHRACENE	ug/l	NO	ND	ND	ND	ND .	ND
	DI-N-BUTYL PHTHALATE	ug/1	ND	ND	ND	ND	ND	ND
	FLUORANTHENE	ug/1	ND	ND	NÐ	ND	. ND	МÐ
	BENZIDINE	ug/1	ND	ND	ND	ND	NS	NS
•	PYRENE	ug/ì	ND	ND	ND	. ND	ND	ND
	BUTYL BENZYL PHTHALATE	ug/l	ND	ND	ND	ND	ND	ND
	BENZO(A)ANTHRACENE	ug/l	ND	ND	ND	ND	ND	ND
	CHRYSENE	ug/l	ND	ND	ND	ND	ND	ND
	3,3'-DICHLOROBENZIDINE	ug/l	ND	ND	ND	ND	ND	. ND
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/l	17.0000	ND	<5.0000	ND	ND	ND
	DI-N-OCTYL PHTHALATE	ug/l	ND	.ND	ND	ND	ND .	ND
	BENZO(B)FLUORANTHENE	ug/l	ND	ND	NÐ	ND	ND	ND
	BENZO(K)FLUORANTHENE	ug/1	ND	ND	ND	ND	ND	ND
	BENZO(A)PYRENE	ug/l	ND	ND	ND	ND	ND	ND
	INDENO(1,2,3-C,D)PYRENE	ug/l	ND	ND	ND	ND	ND	ND .
	DIBENZO(A,H)ANTHRACENE	ug/l	ND	· ND	ND	ND	ND	ND:
	BENZO(G,H,I)PERYLENE	ug/l	NĐ	ND	ND	ND	ND	ND
	2,3,7,8-TETRACHLORODIBENZO-P-D	ug/1	ND	ND	NO	ND	NS.	ND

			DATE 04/10/85	DATE 06/26/85	DATE 10/15/85	DATE- 01/23/86	DATE 04/24/86	DATE 07/29/86	DATE 10/10/86
CATEGORY	PARAMETER	UNITS	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION	CONCENTRATION
BASE/NEUTRALS									
	N-NITROSODIMETHYLAMINE	ug/1	NS '	NS	NS	NS	ND	NC	NG
	BIS(2-CHLOROETHYL)ETHER	ug/l	NS	NS	NS	NS	ND	NS	NS
	1,3-DICHLOROBENZENE	ug/l	NS	NS	NS	NS		NS	NS
	1,4-DICHLOROBENZENE	ug/l	NS	. NS	NS	NS	ND.	NS	NS
	1,2-DICHLOROBENZENE	ug/l	NS	NS			ND	NS	NS
	BIS(2-CHLOROISOPROPYL)EYHER	ug/l	NS	NS	NS NS	NS NS	ND	NS	NS
	HEXACHLOROETHANE	ug/)	NS	NS	NS	NS NS.	ND	NS	NS
	N-NITROSODI-N-PROPYLAMINE	ug/l	NS NS	NS	NS		ND	NS	NS
	NITROBENZENE	ug/l	NS	NS	NS	NS	ND	NS	NS
	ISOPHORONE	ug/l	NS	NS		NS	ND	NS	NS
•	BIS(2-CHLOROETHOXY)METHANE	ug/l	NS	NS	NS	. NS	ND	NS	NS
	1,2,4-TRICHLOROBENZENE	ug/l	NS	NS NS	NS	NS	ND	NS	NS
_	NAPHTHALENE	-	NS		NS	NS	ND	NS	NS
•	HEXACHLOROBUTADIENE	ug/l ug/l	NS NS	NS NG	NS	NS	ND	NS	NS
	HEXACHLOROCYCLOPENTADIENE	ug/l	NS	NS NG	NS	NS	NO	NS	NS
	2-CHLORONAPHTHALENE	•	NS	NS NS	NS -	NS	ND	NS	. NS
	ACENAPHTHYLENE	ug/)		NS	NS	NS	ND	NS	NS
	DIMETHYL PHTHALATE	ug/1	NS No	NS	NS	NS	ND	NS	NS
	2,6-DINITROTOLUENE	ug/)	NS	NS	NS	NS	ND	NS	NS
	ACENAPHTHENE	ug/1	NS	NS	NS	NS	ND	NS	NS
	· · · · · · · · · · · · · · · · · · ·	ug/1	NS	NS	NS	NS	ND	NS	NS
	2,4-DINITROTOLUENE FLUORENE	ug/l	NS	NS	NS	NS	ND .	NS	NS
		ug/l	NS	NS	NS	NS	ND	NS	NS
	DIETHYL PHTHALATE	ug/l	NS	. NS	NS	NS	ND	NS	NS
	4-CHLOROPHENYL PHENYL ETHER	ug/l	NS	NS	NS	NS	ND	NS	NS
	N-NITROSODIPHENYLAMINE	ug/l	NS	NS	NS .	NS	ND	NS	NS
	1,2-DIPHENYLHYDRAZINE	ug/)	NS	NS	NS	NS	ND	NS	NS
	4-BROMOPHENYL PHENYL ETHER	ug/l	NS	NS	NS	NS	ND	NS	NS
	HEXACHLOROBENZENE	ug/l	NS	NS	NS	NS	ND	NS	NS
	PHENANTHRENE	ug/l	NS	NS	NS	NS	ND	NS	NS
	ANTHRACENE	ug/l	NS	NS	NS	NS	ND	NS	NS
	DI-N-BUTYL PHTHALATE	ug/l	NS	NS	NS	NS	ND	, NS	NS
	FLUORANTHENE	ug/l	NS	NS	NS	NS	ND	NS	NS
	BENZIDINE	ug/l	NS	NS	NS	NS	ND	NS	NS
	PYRENE	ug/l	NS	NS	NS	NS	ND	NS	NS
•	BUTYL BENZYL PHTHALATE	ug/l	NS	NS	NS	NS	ND	NS	NS
	BENZO(A)ANTHRACENE	ug/l	NS	NS .	NS	NS	NO	NS	NS
	CHRYSENE	ug/l	NS	NS	NS	NS	ND	NS	NS
	3,3'-DICHLOROBENZIDINE	ug/l	NS	NS	NS	NS	ND	NS ·	NS
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/l	NS	NS	NS	NS	ND	NS	NS
	DI-N-OCTYL PHTHALATE	ug/l	NS	NS	NS	NS	ND	NS	NS .
	BENZO(B)FLUORANTHENE	ug/l	NS	NS	NS	NS	ND	NS	NS
	BENZO(K)FLUORANTHENE	ug/l	NS NS	NS	NS	NS	ND	NS	NS
	BENZO(A)PYRENE	ug/1	NS	NS	NS	NS	ND	NS	NS
	INDENO(1,2,3-C,D)PYRENE	ug/l	NS	NS	NS	NS	ND	NS	NS
	DIBENZO(A,H)ANTHRACENE	ug/1	NS	NS	NS	NS	ND	NS	NS
	BENZO(G,H,I)PERYLENE	ug/l	NS	NS	NS	NS	. NO	NS.	NS
	2,3,7,8-TETRACHLOROD1BENZO-P-D	ug/l	NS	NS	NS	NS	NU ,	NS	NG

CATEGORY	PARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 10/15/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 CONCENTRATION
WQP		•		÷					
,	ALKALINITY	~ mg/l	73.1000	251.0000	62.9000	30.2000	49.8000	98.0000	61.4000
	AMMONIA	mg/l	56.0000	333.0000	42.0000	105.0000	135.0000	164.0000	107.0000
	COLIFORM, TOTAL	col/100m	100.0000	13.0000	<2.0000	<2.0000	NS	2.0000	<2.0000
	BIOCHEMICAL OXYGEN DEMAND	mg/l	6.6000	NS	5.6000	0.9000	2.2000	42.0000	2.5000
	TOTAL ORGANIC CARBON	mg/1	8.7000	5.9700	6.9200	2.7300	3.6300	2.8000	4.8000
	CHEMICAL OXYGEN DEMAND	mg/l	48.0000	573.0000	14.5000	50.4000	18.5000	66.0000	67.1000
,	CHLORIDE	mg/1	27.8000	416.0000	13.2000	12.0000	11.6000	NS	NS
	CYANIDE	mg/1	1.5000	38.0000	0.0860	0.0450	0.0090	10.3000	<0.0050
•	FLUORIDE	mg/1	0.9100	1.0000	0.7500	0.6900	0.8000	1.1200	2.6000
	ALUMINUM, DISSOLVED	mg/1	<0.5000	<0.5000	NS	NS .	NS	NS	NS
-	- ARSENIC, DISSOLVED	mg/1	<0.0010	₹0.0010	NS	NS	NS NS	NS NS	NS NS
	BÄRIUM, DISSOLVED	mg/1	<0.5000	0.5000	NS	NS	NS	NS.	NS
-	CHROMIUM, DISSOLVED	mg/l	0.0050	<0.0040	0.0010	<0.0010	<0.0010	<0.0010	0.0020
•	IRON, DISSOLVED	mg/1	16.4000	49.0000	4.5000	<0.1000	<0.1000	1.4000	6.4000
•	LEAD, DISSOLVED	mg/1	0.0030	<0.0010	NS	NS	NS	NS	NS .
	MANGANESE, DISSOLVED	mg/l	9.4000	12.0000	6.1200	6.2100	6.0000	8.9000	8.5000
	MERCURY, DISSOLVED	mg/l	<0.0002	<0.0050	NS	NS	NS	NS	NS
•	SELENIUM, DISSOLVED	mg/l	0.0050	0.0050	NS	NS	NS	NS	NS
	SILVER, DISSOLVED	mg/l	<0.0010	<0.0010	NS	NS	NS	NS .	NS
•	SODIUM, DISSOLVED	mg/l	29.4000	144.0000	13.0000	12.2000	13.3000	31.0000	19.0000
	NITRATE, NITROGEN	mg/1	2.2000	<0.0050	0.9700	1.2000	0.4400	1.0400	8.3000
	TOTAL ORGANIC HALOGENS	ug/l	215.0000	19.0000	<5.0000	<5.0000	93.0000	7.0000	18.0000
* *	2,4 - D	ug/1	<0.2500	<2.5000	NS	NS	NS	NS .	NS
	2,4,5 - TP	ug/1	<0.2500	<10.0000	NS	NS	NS	NS	NS .
•	LINDANE	ug/l	<0.5000	<0.0030	NS	NS	- NS	NS ·	NS
	ENDRIN	ug/1	<0.5000	<0.0220	NS	NS	NS	NS	NS
	METHOXYCHLOR	ug/1	<2.5000	<0.0490	NS	NS .	NS	NS .	· NS
•	TOXAPHENE	ug/l	<25.0000	<0.0980	NS	NS.	NS	ŃS	NS
	TOTAL PHENOLS	mg/l	<0.0050	0.0100	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	PH. '	standard.		6.4000	6.4500	6.7100	6.9000	6.5500	6.2800
	TOTAL DISSOLVED SOLIDS	umhos/cm	1120.0000	2830.0000	1400.0000	1400.0000	1210.0000	1070.0000	1260.0000
	SPECÍFIC CONDUCTANCE	mg/l	1470.0000	4094.0000	1620.0000	1670.0000	2020.0000	2690.0000	2120.0000
	SULFATE	mg/l	871.0000	1675.0000	990.0000	1020.0000	1040.0000	136.0000	1080.0000

			DATE						
			04/10/85	06/26/85	10/15/85	01/23/86	04/24/86	07/29/86	10/10/86
CATEGORY	PARAMETER	UNÍTS	CONCENTRATION						
WQP		, ,				•.			
	ALKALINITY	mg/l	1040.0000	1093.0000	709.0000	630.0000	391.0000	40.0000	1070.0000
	AMMON I A	mg/1	917.0000	1260.0000	1520.0000	682.0000	350.0000	1110.0000	1226.0000
	COLIFORM, TOTAL	co1/100m	1800.0000	2400.0000	33.0000	<2.0000	NS	5.0000	350.0000
	8IOCHEMICAL OXYGEN DEMAND	mg/l	220.0000	NS	7.9000	515.0000	300.0000	120.0000	330.0000
	TOTAL ORGANIC CARBON	mg/l	5.6000	7.6700	4.5400	194.0000	109.0000	254.0000	371.0000
	CHEMICAL OXYGEN DEMAND	mg/l	1170.0000	1856.0000	1780.0000	1500.0000	393.0000	304.0000	1700.0000
·	CHLORIDE	mg/l	1210.0000	1633.0000	1990.0000	773.0000	473.0000	NS	NS
	CYANIDE	mg/l	159.0000	120.0000	84.0000	24.6000	31.2000	189.0000	439.00 00 -
	FLUORIDE	mg/l	0.9500	1.5000	2.5000	3.8000	5.6000	4.0500	3.2000
	ALUMINUM, DISSOLVED	mg/l	<0.5000	<0.5000	NS	NS	NS	NS ·	NS
	ARSENIC, DISSOLVED	mg/1	0.0120	0.0260	NS	. NS	NS	NS	NS
	BARIUM, DISSOLVED	mg/l	<0.5000	<0.5000	NS	NS	NS	NS	NS
	CHROMIUM, DISSOLVED .	mg/l	0.0510	0.0160	0.0120	0.0020	0.0010	0.0090	0.0080
	IRON, DISSOLVED	mg/l	36.8000	2.6900	0.8000	0.3500	0.2008	3.4000	0.5000
	LEAD, DISSOLVED	mg/l	<0.0010	<0.0010	NS ·	NS	NS ·	NS	NS
	MANGANESE, DISSOLVED	mg/1	3.0000	0.7100	0.2900	5.5300	11.4000	2.6000	0.8500
	MERCURY, DISSOLVED	mg/l	<0.0002	<0.0050	NS	NS	NS .	NS	NS
	SELENIUM, DISSOLVED	mg/l	0.0050	0.0030	NS	NS	NS	NS.	NS
	SILVER, DISSOLVED	mg/l	<0.0010	<0.0010	NS	NS	NS	NS	NS
	SODIUM, DISSOLVED	mg/1	411.0000	430.0000	420.0000	232.0000	274.0000	320.0000	430.0000
	NITRATE, NITROGEN	mg/1	<0.1500	<0.0050	0.1500	<0.1500	<0.1500	<0.5200	NS
	TOTAL ORGANIC HALOGENS	ug/l	78.0000	69.0000	<5.0000	5180.0000	NS	14.0000	99.0000
•	2,4 - D	ug/1	1.1900	<2.5000	NS	NS	NS .	NS	NS
٠	2,4,5 - TP	ug/1	<0.2500	<10.0000	NS	NS	NS	NS	NS
•	LINDANE	ug/l	<0.5000	<0.0300	· NS	NS	NS	NS NS	NS
	ENDRIN	ug/1 .	<0.5000	<0.2200	NS	NS -	NS	NS	NS ·
	METHOXYCHLOR	ug/l	<2.5000	<0.4900	NS	NS.	NS	NS	, NS
	TOXAPHENE	. ug/1	<25.0000	<0.9800	NS	NS	NS	NS .	NS .
	TOTAL PHENOLS	mg/1	<0.0050	36.9000	3.8500	0.7200	0.3700	2.3100	1.8400
	PH	standard	7.1500	7.4500	8.3100	7.7500	6.7500	7.7800	7.4100
	TOTAL DISSOLVED SOLIDS	umhos/cm	4920.0000	3870.0000	4190.0000	5180.0000	5290.0000	1710.0000	4850.0000
	SPECIFIC CONDUCTANCE	mg/l	8010.0000	9929.0000	9750.0000	7750.0000	6650.0000	10400.0000	11100.0000
	SULFATE	mg/1	2950.0000	2512.0000	2700.0000	3650.0000	3500.0000	2960.0000	3300.0000

CATEGORY	PARAMETER	UNITS	DATE 04/24/86 CONCENTRATION
WQP			
	ALKALINITY	mg/1	389.0000
	AMMONIA	mg/1	328.0000
	COLIFORM, TOTAL	col/100m	NS
	BIOCHEMICAL OXYGEN DEMAND	mg/l	280.0000
	TOTAL ORGANIC CARBON	mg/l	104.0000
	CHEMICAL OXYGEN DEMAND	mg/1	413.0000
	CHLORIDE	mg/l	505.0000
	CYANIDE	mg/l	29.7000
	FLUORIDE	mg/l	5.8000
	ALUMINUM, DISSOLVED	mg/l	NS
	ARSENIC, DISSOLVED	mg/l	NS . T
	BARIUM, DISSOLVED	mg/l	NS
	CHROMIUM, DISSOLVED	mg/l	0.0020
	IRON, DISSOLVED	mg/}	<0.1000
	LEAD, DISSOLVED	mg/1	NS
	MANGANESE, DISSOLVED	mg/l	12.0000
	MERCURY, DISSOLVED	mg/1	NS
	SELENIUM, DISSOLVED	mg/l	NS
	SILVER, DISSOLVED	mg/1	NS
	SODIUM, DISSOLVED	mg/l	261.0000
	NITRATE, NITROGEN	mg/1	<0.1500
	TOTAL ORGANIC HALOGENS	ug/l	57.0000
	2,4 - D	ug/l	NS
	2,4,5 - TP	ug/l	NS
	LINDANE	ug/l	NS
	ENDRIN	ug/l	NS
	METHOXYCHLOR	ug/l	NS
	TOXAPHENE	ug/l	NS
	TOTAL PHENOLS	mg/l	0.3100
	PH .	standard	
	TOTAL DISSOLVED SOLIDS	umhos/cm	4880.0000
	SPECIFIC CONDUCTANCE	mg/l	NS
	SULFATE	mg/l	6700.0000

	•							•	
			DATE						
			04/10/85	06/26/85	10/15/85	01/23/86	04/24/86	07/29/86	10/10/86
CATEGORY	PARAMETER	UNITS	CONCENTRATION						
								2011	
WQP									
	ALKALINITY	mg/l	65.5000	44.2000	47.1000	39.3000	39.8000	58.0000	44.6000
	AMMONIA	mg/l	14.3000	13.1000	6.3000	1.2700	2.4800	4.5500	5.9100
	COLIFORM, TOTAL	col/100m	400.0000	1.0000	5.0000	<2.0000	NS	<2.0000	2.0000
	810CHEMICAL OXYGEN DEMAND	mg/l	2.4000	NS	0.9000	4.6500	6.8000	17.0000	4.7000
•	TOTAL ORGANIC CARBON	mg/l ·	6.7000	5.5100	3.1000	1.3900	1.7500	1.6000	2.5000
	CHEMICAL OXYGEN DEMAND	mg/l	12.7000	57.3000	14.5000	36.0000	<10.0000	<10.0000	<10.0000
	CHLORIDE	mg/1	12.3000	14.8000	17.0000	11.6000	9.5000	NS	NS
•	CYANIDE	mg/l	0.0040	0.0010	0.0250	0.0060	0.0570	<0.0660	0.0120
	FLUORIDE	mg/l	0.6200	0.4700	0.2800	0.4300	0.4400	0.5300	0.4900
-	AĻUMIŅUM, DISSOLVED	. mg/l	<0.5000	<0.5000	- NS	- NS	NS	NS	NS
	ARSENIC, DISSOLVED	mg/l	<0.0010	<0.0010	NS	NS	NS	NS	NS
	BARIUM, DISSOLVED	mg/l	<0.5000	<0.5000	NS	NS	NS	NS	NS
	CHROMIUM, DISSOLVED	mg/l	0.0040	0.0020	0.0060	0.0020	<0.0010	<0.0010	0.0050
	IRON, DISSOLVED	mg/l	0.5000	<0.0500	0.1000	<0.1000	<0.1000	<0.1000	38.0000
	LEAD, DISSOLVED	mg/l	<0.0010	<0.0010	NS	NS	NS	NS	NS
	MANGANESE, DISSOLVED	mg/l	1.7000	1.4000	1.0400	0.6700	0.5800	1.3000	3.2000
	MERCURY, DISSOLVED	mg/l	0.0002	<0.0050	NS	NS	NS	NS	NS
	SELENIUM, DISSOLVED	mg/l	0.0050	0.0030	NS	NS	NS	NS.	NS
	SILVER, DISSOLVED	mg/l	<0.0010	<0.0010	NS	NS	NS	NS	NS
	SODIUM, DISSOLVED	mg/l	54.2000	53.0000	41.0000	25.0000	23.1000	34.0000	24.0000
	NITRATE, NITROGEN	mg/1	15.3000	10.5000	15.0000	11.9000	7.0500	5.4000	5.8000
	TOTAL ORGANIC HALOGENS	ug/1	48.0000	7.0000	<5.0000	<5.0000	1040.0000	<5.0000	13.0000
	2,4 - 0	ug/l	<0.2500	<1.0000	NS	NS	NS	NS	NS
	2,4,5 - TP	ug/l	<0.2500	<1.0000	NS	NS	NS	NS	NS
	LINDANE	ug/1 .	<0.0500	<0.0030	NS ·	NS	NS	NS	NS
	ENDRIN	ug/l	<0.0500	<0.0220	NS	NS	NS	NS	NS NS
	METHOXYCHLOR	ug/l	<0.2500	<0.0490	NS	NS	NS	NS .	NS ·
	TOXAPHENE	ug/l	<2.5000	<0.0980	NS	NS	NS	NS NS	NS
	TOTAL PHENOLS	mg/l	<0.0050	<0.0050	<00050	<0.0050	0.0080	<0.0050	<0.0050 -
	PH	standard	6.5000	6.1900	6.1500	6.4000	6.9500	3700	6.4700
	TOTAL DISSOLVED SOLIDS '	umhos/cm	880.0000	921.0000	762.0000	511.0000	572.0000	252.0000	848.0000
	SPECIFIC CONDUCTANCE	mg/l	1070.0000	1097.0000	903.0000	702.0000	534.0000	754.0000	583.0000
	SULFATE	mg/l	513.0000	420.0000	360.0000	249.0000	51.9000	298.0000	200.0000
		₹.				_,,,,,,,,,	31.3000	230.000	200.0000

			DATE 10/15/85
CATEGORY	PARAMETER `	UNITS .	CONCENTRATION
WOP			
	ALKALINITY	mg/l	47.4000
	AMMON I A	mg/l	6.4000
	COLIFORM, TOTAL	col/100m	2.0000
	BIOCHEMICAL OXYGEN DEMAND	mg/l	0.1000
	TOTAL ORGANIC CARBON	mg/l	3.2400
	CHEMICAL OXYGEN DEMAND	mg/l	43.0000
•	CHLORIDE	mg/1	15.3000
	CYANIDE	mg/1	0.0390
	FLUORIDE	mg/l	0.3000
	ALUMINUM, DISSOLVED	mg/l	NS
	ARSENIC, DISSOLVED	mg/l	NS NS
	BARIUM, DISSOLVED	mg/1	NS
	CHROMIUM, DISSOLVED	mg/l	0.0070
	IRON, DISSOLVED	mg/l	<0.1000
	LEAD, DISSOLVED	mg/l	NS
-	MANGANESE, DISSOLVED	_ mg/l	1.0400
	MERCURY, DISSOLVED	mg/1	NS
	SELENIUM, DISSOLVED	mg/l	NS .
	SILVER, DISSOLVED	mg/l	NS
	SODIUM, DISSOLVED	mg/l	42.0000
	NITRATE, NITROGEN	mg/l	16.0000
	TOTAL ORGANIC HALOGENS	ug/l	<5.0000
	2,4 - D	ug/l	NS
•	2,4,5 - TP	ug/l	NS .
	LINDANE	ug/1	NS
	ENDRIN	ug/l	NS
	METHOXYCHLOR	ug/l	NS
	TOXAPHENE	ug/l	NS
	TOTAL PHENOLS	mg/1	<0.0050
	PH	standard	6.2000
	TOTAL DISSOLVED SOLIDS	umhos/cm	731.0000
•	SPECIFIC CONDUCTANCE	mg/l	906.0000
•	SULFATE	mg/1	360.0000

MOP MARCH March	CATEGORY	PARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 10/15/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 · CONCENTRATION
AMMONIA	WQP									
AMMONIA		ALKALINITY	mg/l	89.8000	314.0000	17.9000	31.1000	19 8000	115 0000	205 0000
COLIFORM, TOTAL Col/100m 2000.0000 8.0000 >2400.0000 2.0000 MS <2.0000 13.0000		AMMON I A	mg/l	20.7000						
SICCHEMICAL OXYGEN DEMAND mg/l 37.0000 NS 1.0000 2.9500 2.4000 12.0000 69.0000		COLIFORM, TOTAL	co1/100m	2000.0000						
TOTAL ORGANIC CARRON mg/1 130,0000 3,1500 2,7800 2,5500 4,5000 5,3000 15,7000 CHENICAL DXYGEN DEMAND mg/1 44,0000 269,0000 47,0000 43,8000 11,9000 50,0000 155,0000 CHLORIDE mg/1 22,7000 152,0000 7,3000 5,5000 10,0000 NS NS NS NS NS NS NS		BIOCHEMICAL OXYGEN DEMAND	mg/l	37.0000						
CHEMICAL OXYGEN DEMAND mg/l		TOTAL ORGANIC CARBON		130.0000						
CHLORIDE mg/l 22.7000 152.0000 7.3000 5.5000 10.0000 NS NS NS CYANIDE mg/l 3.6000 16.8000 0.0020 0.0030 0.0030 3.8800 16.8000 ELUORIDE mg/l 0.1800 0.0800 0.0050 0.1700 0.1200 0.3800 0.5400 ALUMINUM, DISSOLVED mg/l 0.0080 0.0800 NS		CHEMICAL OXYGEN DEMAND		44.0000						
CYANIDE mg/1 3.6000 16.8000 0.0020 0.0030 0.0030 3.6800 16.8000 FLUORIDE mg/1 0.1800 0.0800 0.0800 0.1700 0.1200 0.3800 0.5400 ALUMINUM, DISSOLVED mg/1 0.0080 0.0080 NS		CHLORIDE								
FLUORIDE ALUMINUM, DISSOLVED mg/l 3.9000		CYANIDE	-	3.6000						
ALIMINUM, DISSOLVED mg/l 3.9000		FLUORIDE	_							
ARSENIC, DISSOLVED mg/l 0.0080 0.0080 NS NS NS NS NS NS NS NS NS OCHOMIUM, DISSOLVED mg/l 0.0000 0.5000 NS		ALUMINUM, DISSOLVED	-							
BARIUM, DISSOLVED mg/1		ARSENIC, DISSOLVED	-			•			-	
CHROMIUM, DISSOLVED mg/l 0.0200 0.0060 <0.0010	•	BARIUM, DISSOLVED	-							
IRON, DISSOLVED		CHROMIUM, DISSOLVED	-							•
LEAD, DISSOLVED mg/1 0.0120 0.0020 NS NS NS NS NS NS NS N		IRON, DISSOLVED	mg/l							
MANGANESE, DISSOLVED mg/1 2.3000 4.7000 0.3100 0.5900 0.2400 2.4000 2.4000 2.9000	•	LEAD, DISSOLVED								
MERCURY, DISSOLVED mg/l 0.0005 <0.0050 NS		MANGANESE, DISSOLVED	-							
SELENIUM, DISSOLVED mg/l 0.0080 0.0040 NS NS NS NS NS NS NS N		MERCURY, DISSOLVED	-							
SILVER, DISSOLVED mg/l <0.0010 <0.0010 NS NS NS NS NS NS NS N	•	SELENIUM, DISSOLVED	-							
SODIUM, DISSOLVED mg/l 30.8000 184.0000 2.7000 1.9000 4.1500 9.9000 28.5000		SILVER, DISSOLVED								
NITRATE,NITROGEN mg/l <0.1500	•	SODIUM, DISSOLVED	mg/l							
TOTAL ORGANIC HALOGENS		NITRATE, NITROGEN	-							
2,4 - D		TOTAL ORGANIC HALOGENS	ug/l	82.0000						
2,4,5 - TP	•	2,4 - D	-							
LINDANE		2,4,5 - TP	-							
ENDRIN ug/1 <0.5000 <0.0220 NS		LINDANE	•							
METHOXYCHLOR ug/l <2.5000 <0.0490 NS NS NS NS NS TOXAPHENE ug/l <25.0000		ENDRIN	-							
TOXAPHENE ug/l <25.0000 <0.0980 NS NS NS NS NS NS NS NS TOTAL PHENOLS mg/l <0.0050 0.0140 <0.0050 <0.0050 0.0060 <0.0050 <0.0050 PH standard 6.9900 6.5700 5.8900 6.5000 6.3400 6.4900 6.6700 TOTAL DISSOLVED SOLIDS umhos/cm 108.0000 1320.0000 218.0000 163.0000 230.0000 210.0000 1405.0000 SPECIFIC CONDUCTANCE mg/l 461.0000 1777.0000 186.0000 158.0000 NS 369.0000 588.0000		METHOXYCHLOR	-							
TOTAL PHENOLS mg/l <0.0050 0.0140 <0.0050 <0.0050 0.0060 <0.0050 <0.0050 PH standard 6.9900 6.5700 5.8900 6.5000 6.3400 6.4900 6.6700 TOTAL DISSOLVED SOLIDS umhos/cm 108.0000 1320.0000 218.0000 163.0000 230.0000 210.0000 1405.0000 SPECIFIC CONDUCTANCE mg/l 461.0000 1777.0000 186.0000 158.0000 NS 369.0000 588.0000		TOXAPHENE	-							
PH standard 6.9900 6.5700 5.8900 6.5000 6.3400 6.4900 6.6700 TOTAL DISSOLVED SOLIDS umhos/cm 108.0000 1320.0000 218.0000 163.0000 230.0000 210.0000 1405.0000 SPECIFIC CONDUCTANCE mg/l 461.0000 1777.0000 186.0000 158.0000 NS 369.0000 588.0000		TOTAL PHENOLS	•							
TOTAL DISSOLVED SOLIDS umhos/cm 108.0000 1320.0000 218.0000 163.0000 230.0000 210.0000 1405.0000 SPECIFIC CONDUCTANCE mg/l 461.0000 1777.0000 186.0000 158.0000 NS 369.0000 588.0000		PH	-							
SPECIFIC CONDUCTANCE mg/l 461.0000 1777.0000 186.0000 158.0000 NS 369.0000 588.0000		TOTAL DISSOLVED SOLIDS								
CHI CATE 300.0000	•	SPECIFIC CONDUCTANCE								
30LFATE mg/1 111.0000 511.0000 32.0000 30.0000 51.9000 33.1000 80.0000		SULFATE	mg/l	111.0000	511.0000	32.0000	30.0000	51.9000		

CATEGORY	PARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 CONCENTRATION
WQP								
	ALKALINITY	mg/1 -	5.1000	<1.0000	<10.0000	<10.0000	<5.0000	<10.0000
	AMMON I A	mg/l	<0.0200	<0.0200	<0.0200	0.0540	<0.0300	0.0520
	· COLIFORM, TOTAL	co1/100m	<1.0000	NS	<2.0000	NS	NS	NS
••	BIOCHEMICAL OXYGEN DEMAND	mg/1	0.5000	NS	0.5000	1.8000	0.3000	2.5000
	TOTAL ORGANIC CARBON	mg/l	0.6000	1.2900	<0.5000	<0.5000	0.4000	<0.5000
	CHEMICAL OXYGEN DEMAND	mg/l	8.4000	<7.0000	19.7000	<10.0000	<10.0000	<10.0000
	CHLORIDE	mg/l	<3,0000	<3.0000	<3.0000	20.9000	NS	NS
	CYANIDE	mg/l	<0.0010	<0.0010	<0.0010	<0.0050	<0.0050	<0.0050
	FLUORIDE	mg/l	<0.0500	<0.0500	<0.0500	<0.0500	0.0100	0.0200
	ALUMINUM, DISSOLVED	mg/l	<0.5000	<0.5000	NS	NS -	NS	NS
	ARSENIC, DISSOLVED	mg/l	<0.0010	<0.0010	NS	NS	NS	NS
	8ARIUM, DISSOLVED	mg/l	<0.5000	<0.5000	NS	NS NS	NS	NS
	CHROMIUM, DISSOLVED	mg/l	0.0040	0.0030	<0.0010	<0.0010	<0.0010	<0.0010
	IRON, DISSOLVED	mg/1	<0.0500	<0.0500	<0.1000	<0.1000	<0.1000	<0.1000
	LEAD, DISSOLVED	mg/l	0.0090 ·	<0.0010	NS	NS	NS	NS
	MANGANESE, DISSOLVED	mg/1	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
a.	MERCURY, DISSOLVED	mg/l	<0.0002	<0.0050	NS	NS	NS	NS
	SELENIUM, DISSOLVED	mg/l	0.0030	0.0030	NS	NS	NS	NS
	SILVER, DISSOLVED	mg/l	<0.0010	<0.0010	NS	NS	NS	NS
	SODIUM, DISSOLVED	mg/1	<0.2000	<0.2000	0.5400	10.1000	<0.5000	<0.5000
	NITRATE, NITROGEN	mg/1	<0.1500	<0.0050	<0.1500	0.8700	<0.5200	<0.2600
	TOTAL ORGANIC HALOGENS	ug/l	26.0000	29.0000	<5.0000	69.0000	<5.0000	<5.0000
	2,4 - D	ug/l	<0.2500	<1.0000	NS	NS	NS	NS
	2,4,5 - TP	ug/l	<0.2500	<1.0000	NS	NS	NS	NS
	LINDANE	ug/l	<0.0500	<0.0020	NS	NS	NS	NS
	ENDRIN	ug/l	<0.0500	<0.0270	NS	NS	NS	NS
	METHOXYCHLOR	ug/l	<0.2500	<0.0580	NS	NS	NS	NS
	TOXAPHENE	. ug/1	<2.5000	<0.0200	NS	·NS	NS	NS
	TOTAL PHENOLS	mg/l	<0.0050	0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	PH ·	standard	6.6700	6.0500	6.2100	6.2000	6.8400	6.3300
	TOTAL DISSOLVED SOLIDS	umhos/cm	<1.0000	18.0000	37.0000	92.0000	<1.0000	392.0000
	SPECIFIC CONDUCTANCE	mg/l	32.5000	1.5000	4.6000	84.0000	1.2800	1.1200
	SULFATE	mg/1	4.2000	<15.0000	. <10.0000	10.6000	11.8000	<10.0000

CATEGORY	PARAMETER	UNITS	DATE 04/10/85 CONCENTRATION	DATE 06/26/85 CONCENTRATION	DATE 10/15/85 CONCENTRATION	DATE 01/23/86 CONCENTRATION	DATE 04/24/86 CONCENTRATION	DATE 07/29/86 CONCENTRATION	DATE 10/10/86 CONCENTRATION
WQP									
·	ALKALINITY	mg/l	NS	NS	NS	NS	<10.0000	NS	NS
	AMMON I A	mg/1	· NS	NS	NS	NS	0.0570	NS	NS
	COLIFORM, TOTAL	col/100m		NS	NS	NS	NS	NS	NS
	BIOCHEMICAL OXYGEN DEMAND	mg/l	NS	NS	NS	NS	1.8000	NS	NS
	TOTAL ORGANIC CARBON	mg/1	NS	NS	NS	NS	<0.5000	NS	NS
	CHEMICAL OXYGEN DEMAND	mg/l	NS	NS	NS	NS	<10.0000	NS	NS .
	CHLORIDE	mg/1	NS	NS	NS	NS	<3.0000	NS	NS .
	CYANIDE	mg/1	NS	NS	NS .	NS	<0.0050	NS	NS
	FLUORIDE	mg/l	NS	NS	NS	NS	<0.0500	NS	NS
	ALUMINUM, DISSOLVED	mg/1	NS	NS	NS	NS .	NS	NS -	- NS -
	ARSENIC, DISSOLVED	mg/1	NS						
	BARIUM, DISSOLVED	mg/1	NS						
	CHROMIUM, DISSOLVED	mg/l	NS	NS	NS	NS	<0.0010	NS NS	NS
	IRON, DISSOLVED	mg/l	NS	NS	NS	NS	<0.1000	NS	NS
	LEAD, DISSOLVED	mg/l	NS	NS	NS	NS	NS	NS NS	NS
· •	MANGANESE, DISSOLVED	mg/l	NS	NS	NS	NS	<0.0500	NS NS	NS
	MERCURY, DISSOLVED	mg/1	NS	NS	NS	NS	NS	· NS	NS
	SELENIUM, DISSOLVED	mg/l	NS	NS	NS .	NS	NS	NS	NS
	SILVER, DISSOLVED	mg/l	NS	NS	NS	NS	NS	NS .	NS
	SODIUM, DISSOLVED	mg/l	NS	NS	NS	NS	1.4500	NS .	NS
	NITRATE, NITROGEN	mg/l	NS	· NS	NS	NS	<0.1500 ·	NS NS	NS
	TOTAL ORGANIC HALOGENS	ug/1	NS	NS	NS	NS	29.0000	NS	NS
	2,4 - D	ug/l	NS	NS	NS	NS .	NS	NS	NS
•	2,4,5 - TP	ug/1	NS	· NS	NS	NS	NS	NS NS	NS.
	LINDANE	ug/1	NS	NS	NS	NS ·	NS	NS NS	NS
	ENDRIN	ug/l	NS	NS	NS	NS	NS	NS NS	NS NS
	METHOXYCHLOR	ug/1	NS	NS	NS	NS	NS	NS	NS NS
	TOXAPHENE	ug/1	NS	NS	NS	NS	NS NS	NS NS	NS NS
	TOTAL PHENOLS	mg/1	NS	NS	NS .	NS	<0.0050	NS	
	PH	standard	NS	NS	NS .	NS	6.3600	NS	NS NS
	TOTAL DISSOLVED SOLIDS	umhos/cm	NS	NS NS	NS	NS	26.0000	NS NS	
	SPECIFIC CONDUCTANCE	mg/1	NS NS	NS	NS	NS	3.9000	NS NS	NS NS
	SULFATE	mg/1	NS NS	NS	NS	NS	11.9000	NS	NS NS

File with PAD 000427906 Fixed Samples ER-BL13 REW, 1-82 COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF LAPORATORIES LAB. Number 1 450GM1 Phendics (5ml Co. 不WATER OR WASTE QUALITY REPORT 010987 Date Received ___ NaOH) 1X500 port Cycenido ALL CHEMICAL ANALYSES EXPRESSED IN MG/L UNLESS OTHERWISE SPECIFIED COLL NUMBER TRITES BUE Hunu Saurul. MUNICIPALITY STD ANALYSIS GINZLER ID CODE (ALL CARDS) 4-16 LONGITUDE 11-18 CARD (3) LATITUDE 4-10 DATE 19-24 TIME 25-28 **KIND 29** Est Mun Case Fac D BUREAU 35-37 AMIS USGS-Q 30-34 SAMPLE NUMBER 38-43 STREAM NAME 44-57 RELATIVE POINT 58 EL TRIBUTARY TO: ADDITIONAL LAB ANALYSES FULL DESCRIPTION WHERE SAMPLE TAKEN FIELD ANALYSES LAB ANALYSES Type Sample 59-60 Chemist Date Analyzed e of Sample Total Solids (00500) Color (00080) 63-64 Reason Sampled Susp. Solids (00530) Turb (00070)Proportional Set Solids (00545) Uniform 65 Composite (00403) Sample Temporal 66 Total Diss Solids (00515) Spec. Cond. Spatial (00095) NO₂N (00615) Aliquots 67-68 Alk (00410)Flow Estimated 69 NO_3N (00620) pH4 (00436)Condition Normal - 2 Above - 1 Flood - 5 80 Hot Below - 3 No Flow - 4 (70508) NH₂N (00610) рН8 CARD (2) (00435) Cold Stream Flow-CFS (00061)T.O.C Kjel-N (00625)(00680) Stream Flow-MGD (50051) C.O.D. (00340) Hardness (00900) ow-MGD (50050) 5-Day BOD (00310) Gage Reading-Ft. (00065) Ca (00916) (00665) (00666) TD (00010) Temp (C) Mg (00927) (00400) Al-Tot ug/I (01105) SO. (00945)D.O (00300)Cd-Tot ug/I (01027) CI (00940)CI (50060) Cr-Tot ug/I (01034) (00951)Hai Br (71871) Cu-Tot ug/I (01042) **MBAS** (38260) I (71866) Phenois Dr. (46002) Spec Cond (00094)Fe-Tot ug/I (01045) Ds (32730) ug/I Appearance (46001) (01055) Mn-Tot ug/1 Cyanide (00720)Odor (01330) Ni-Tot ug/1 (01067) 1/9/97 CUSTODY LOG How Shipped Perclater Pb-Tot ug/I (01051) Date Legal Seal No. 29 3565 Zn-Tot ug/1

Received by Condition of Seal. (01092)

_ABORATORY REPORT FOR SAMPLE NUMBER 8741883

RECEIVED 1/09/87 REPORTED 3/02/87

4	77. 10.		A CONTRACT OF THE SECOND SECOND	NO. 2139020	4.5			BAMPLING DATE SAMPLING TIME	1/08/87 11:87	3 4
	; <u>7.</u>	<u>aa aanan kantii Kanta ta ahali Mitti ata tan aa ka ka ka ka ka</u>	ESTABLISHM CASE NAME	ENT-PHILADELP ANNUAL RC		CO.		TYFE	000	5
•	, 5 j I 5 j		FACILITY	INACTIVE		G PLANT		SOURCE	00	7 G
(3		ID CODE	NONE LATITUDE		.O LONG		STANDARD-ANAL 0:00.0	510	9 10 11
(1.36	TEST	DESCRIPTION	RESULT	LABORAT CONC VER		SIS: VERIFY DATE	E COMMENT		13 14 15 16
,	[15]	00095	SPEC COND	6.0000	λ(19.00 6	ЖИK	1/09/87			17
ď	,,,	50403	PH LAB	5.7000	6	HRO	1/12/87		Truckila vuota käättesi l	10
	-	00410	TALK CACO3	4.0000			1/12/87			20
€		00610	T NH3-N <	0.0200	#5/L 6		1/12/97			22
-		09690 —- 75600	T NO3-N <	0.0400 	MG/L 6 ME A		1/12/87			24
	,	00880	T ORG C MG/L <	1.0000	MG/L G		1/20/87 1/26/87			25
(00719	CN, FREE HBG <	1:0000	V6/L 6	•	1/12/87			25 27
		00720	- CH	·0.0010-			1/12/87			(12.E)
(33	00929	NA, TOT MG/L	1.6200	MG/L G		2/09/87			30
4		00940	CHLORIDE <	1.0000	MG/L G	SLF	1/12/87			37
	25		SO4-TOT	10.0000		KLS	1/12/87			32
₫	24	00951	F,TOTAL <	0.1000	HG/L G		1/14/87			34
•	27	01002	AS, TOTAL <	4.0000	UG/L G	DES .	1/16/87			35 35
	::3		-BA TOT-UG/L< CD TOT UG/L <	10.0000 10.0000	- UG/L: 6 - UG/L - 6		2/09/ 87 2/09/87			1371
1	[25]	01027	CR HEX,UG/L <	10.0000	UG/L G		1/09/87	•		32 32
	20	01034	-CR-70T-UG/L	50:0000		37 IA	2/09/8 7-		-	[40]
_	31	01042	CU TOT UG/L	10.0000	U6/L 6		2/09/87			41
1	اعد احدا	01045	FE TOT		UG/L 6		2/09/87			43/
	143	01051	PB,TOTAL <	50.0000	-UG/LG		2/09/87	·		14
(33	01055	MN TOTAL <	10.0000	UG/L G	AUM	2/09/87			43
9	•	01067	NI, TOTAL	25.0000	UG/L G		2/09/87			43
	37	01077	AG, TOTAL S	6 7 7 7	-UG/L G	4.5	2/27/87	- 1435 J		
1	ca	01092	ZN,TOT UG/L <	10.0000			2/09/87		74.11	49 50
₹-	33	01147	SE,T AS UG/L		UG/L G	2	1/16/87	<u>.</u>		91
	Cir	32730 70353	PHENOLS PP8	0.0000	-067L ' ↓	_	1/09/87 2/07/87		AMPLE RECEIVED	99
1	43.1	70333 71900	MERCURY <	1.0000	UG/L G		1/26/87	40 9E(- 9	THE LA MADEIVED	ear Ev
	42		- reconnected A		प्रकारकक्ष्ण	्रापुरा कृतस्य सम्बद्धाः राषुरा कृतस्य सम्बद्धाः		 		56
(44			TOTAL	NUMBER OF	TESTS FOR	THIS SAMPLE	29		ង១
a	45									59 60
	دا ــام ايون		<u>arantan yak</u> an sanashi <u>Abib</u>			<u>, sarrenia Jelela</u>	سناكمة مخضيه سنسيد.			,uil
(57		•							62
	46									Ga
ć	49									65 66
•	51									67
	52		<u> </u>	<u> </u>					<u>e parentes a Consessión de la </u>	93) 68
(23									70 71
	54			•			•			72
3	35									73
(26			gan en						74 73
	(57				-					79

ER BL 13 P

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF LABORATORIES

LAB. Number _

Date Received _

(x500ml Phenolics (5ml x500ml (yanido (A	(CUSO4) 1	ALL CH	EMICAL AN	E QUALITY ALYSES EXPRESSED I		Date Recei	ved010987
3)		MG/L	UNLESS O	HERWISE SPECIFIED	Inac	tive.	
Phila Coke Co	CAS	l hnval	RCRI	A Solit	FACILITY	Bridesho	7 Pant 2139
Phila. P	NICIPALITY .	PROGRA	17) K	irah L.	Ginzle	215-270-	TYPE TR SEE ANALYSIS
CARD (3) ID CODE (AI	LL CARDS) 4-16		TUDE 4-10		TUDE 11-18	DATE 19-24	TIME 25-28\ KIND 29
Cnty Mun T	Est Case	Fac				01 018817	01/010 1
USGS-Q 30-34 BUREAU	35-37 AMIS SAMP	LENUMBER 38-43	ارحما 7		M NAME 44-57	MOI.1 &13	RELATIVE POINT 58
TRIBUTARY TO:		(4)		Lottles)			ADDITIONAL LAB ANALYSES
FULL DESCRIPTION WHERE SAMPLE TAKE		nalus	16 4	- <i>C</i> UA	nido.		
		realigs	, ,		. r 1112- Com		
FIELD ANALYSES	- 				LAB AN	ALYSES	
Type Sample	59-60	Chemist				Date Analyzed	
æ of Sample	61-62	Color	(00080)			Total Solids (00500)
Reason Sampled ·	63-64 01	Turb	(00070)			Susp. Solids (00530)
Proportion Composite Uniform	nal 65	рН	(00403)			Set Solids (00545	
Sample Temporal Spatial	. 66	Spec. Cond	(00095)			Total Diss Solids (00515	
Aliquots	67-68	Aik	(00410)			NO₂N (00615	»
Flow Estimated Measured	69	pH4	(00436)			NO₃N (00620)
	Flood - 5	Hot pH8	(70508)			NH3N (00610	,
Stream Flow-CFS (00061)	CARD (2)	Cold T.O.C.	(00435) (00680)			Kjel-N (00625	,
Stream Flow-MGD (50051)		C.O.D.	(00340)			~.····.	
low-MGD (50050)		5-Day BOD	(00310)			Hardness (00900)
Gage Reading-Ft (00065)		_ т	(00665) (Ca (00916	1
Temp (C) (00010)		Р то	(00666)			Mg (00927)
pH (00400)		Al-Tot ug/i	(01105)			SO ₄ (00945	
D.O. (00300)		Cd-Tot ug/I	(01027)			CI (00940	,
Cı (50060)		Cr-Tot ug/I	(01034)			F (00951	
Hal Br (71871)		Cu-Tot ug/I	(01042)			MBAS (38260	
I (71866)		٠,				Phenois Dr. (46002	,
Spec Cond (00094)		Fe-Tot ug/1	(01045)			ug/I Ds (32730	
Appearance (46001)		Mn-Tot ug/I	(01055)			Cyanide (00720	,
Odor (01330)	. -	Ni-Tot ug/1	(01067)			(5
CUSTODY LOG How Shipped Purclator	Date 6 67	Pb-Tot ug/I	(01051)			(<u>·</u>)
Legal Seal No. 293584, Received by	a-1 02 8	Zn-Tot ug/I	(01092)	. :) H () H () []
Condition of Seal			ŀ	1 1 1			

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	141		CASE NAME	ANNUAL RO	CRA SPLIT			TYPE	01			3
ď	6		FACILITY		BRIDESBURG	PLANT		BOURCE	00 -			7 .
	7	The second second	ID CODE	NONE			. h	STANDARD-ANA	F-510			Ð.
1	3			LATITUDE"	0.00:00:00	LON	GITUDE 00:00	0:00.0				10
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_	11.2		•		LABORATOR	Y ANAI	vete:					13
1	· .,	TEST	DESCRIPTION	RESULT	CONC VERIF		VERIFY DATE	E COMMENT				15
	113											17
*		00095	SPEC COND	450.0000	6	MAK	1/09/87					:8
	្រុះ ម	00403	PH LAB	6.1000		MRO	1/12/87					19 20
			T ALK CACO3	50.0000		MRO	1/12/87		artinia de la composición del composición de la composición del composición de la composición del composición del composición de la composición de la compos	2		21
4	•	08900	T NH3-N T NO3-N	1.9800 6.1400	MG/L G MG/L' G	BLF BLF	1/12/87 1/12/87					32
	يان د		T-KJELD-N	2.3200			1/22/8 7					24
aged).	1	00480	TORG C MG/L <	1.0000	M6/L 6	. WVH	1/26/87				**************************************	25 26
1	. * 	00719		1.0000	UG/L: G	EVC	1/12/87					27
	1.1.	00720	CN	0.0340-		EVC	1/12/87			* (***********************************		25
4	 	00929	NA, TOT MG/L	22.4000	MG/L ; G	ALM	2/09/87				4,11	20
·3.	2.44	00940	CHLORIDE	5.0000	MG/L G	BLF	1/12/87					31
	28	00945	504 TOT	· · ·	- HG/LG-	-KLS:-	1/12/87		(1 - 3 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5			33
4		00951	F,TOTAL	0.3400	MG/L 5	EVC	1/14/87	. Azeti				34
•	27	01008 01007	AS, TOTAL	4,0000	UG/L G	DES	1/16/87	× 30				36
	est)	01027	─BA-TOT-UG/L CD TOT UG/L <		-UG/L : 5 - UG/L : 5	ALM ALM	2/09/87 2/09/87					32
1	131 1	01032	CR HEX,UG/L <		UG/L 5	MAM	1/09/87	r				36 C
	201	01034	CR-TOT-UG/L		-U6/L - 6-	-Hda	- 2/ 09/87	····			<u> </u>	40
7	-31	01042	CU TOT US/L (10.0000	U6/L 6	ALM	2/09/87		5			48
3	ura. Tra	01045	FE TOT	273.0000	UG/L + 6	MJA	2/09/87		nagy jiya			42
	100	01051	PB, TOTAL		-UG/L - G	- HJA	2/09/87					4:51
1	33	01055	AN TOTAL	441.0000	UG/L G	ALM	2/09/87					45
730		01067	NI,TOTAL <		U5/L ' 5	ALK	2/09/87					48
	[27]	01077	AG, TOTAL	, 2760,00005,0405 to 1	UG/L G	-MbK	2 /27/87- 2/09/87					49
1	58	01092 01147	ZN,TOT UG/L SE,T AS UG/L	[2] S. D. W. S. M. S.	_UG/L	ALM H88	1/28/87					50
	, 	32730	PHENOLS	0.0000		- EVC	1/09/87					25
,	1	70353	ORG HLDS PPB .	0.0000		LCW	2/07/87	NO SEP.	SAMPLE RECEIVED			53
£	42	71900	MERCURY <	1.0000		DHH	1/26/87					33
	1:3				various i							57
(14			TOTAL	NUMBER OF TH	STS FO	R THIS SAMPLE	29				58
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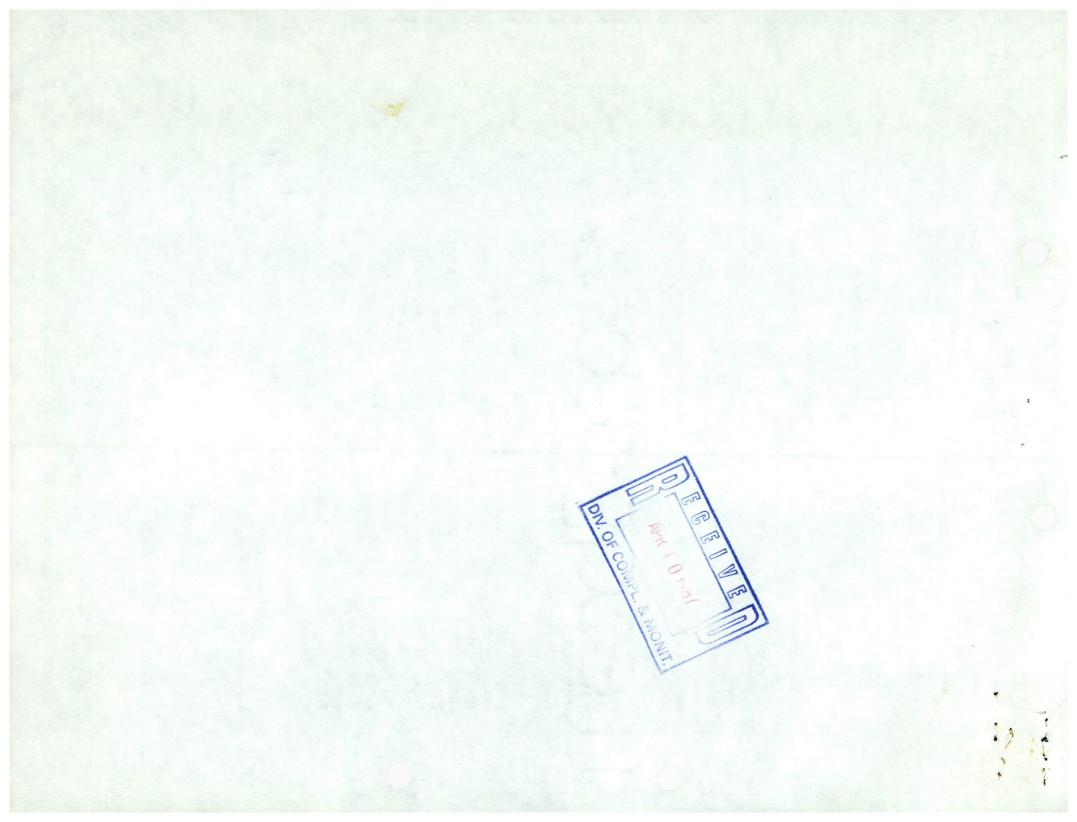
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A CONTRACTOR OF THE PARTY OF TH	DEPARTMENT OF ENVIRONMENTA
12 THE WALLSHIP TO THE	BUREAU OF L'ABORATO
1x500ml/henolics.5ml Cuspan	WATER OR WASTE QUA
(X500 IN CHAMICO (NAOH)	ALL CHEMICAL ANALYSES EXP

1500ml/henolics.5ml Custy)	ALL CHEMICAL A	TE QUALITY REPORT NALYSES EXPRESSED IN OTHERWISE SPECIFIED	Date Receiv	red
	SE .	A.C. [-] FACILITY	70 . ()	COLL NUMBER
Phila (OKE COMPUNE)	Annua KCRI	Soll NAME	ive Bridashura	Hart 2139 TYPE TR STD ANALYSIS
Philadelphia Phila.			ler 1945	1CE 210X
CARD (3) ID CODE (ALL CARDS) 4-16 Cnty Mun T Est Case	Fac		DATE 19-24 M D Y	TIME 25-28 KIND 29 Hr Min
2 USGS-Q 30-34 BUREAU 35-37 AMIS SAN	PLENUMBER 38-43	STREAM NAME 44-57	ि। विश्वधिन	12301 RELATIVE POINT 58
TRIBUTARY TO: (//	113910	014 WEILL	MC1. 81	ADDITIONAL LAB ANALYSES
FULL DESCRIPTION WHERE SAMPLE TAKEN	t better			ADDITIONAL LAD ANALIGES
* 210 an	, 0, ,0	anido		
FIELD ANALYSES	tals hot	fixed or f	1/12/20X	
Type Sample 59-60	Chemist		Date Analyzed	
61-62 0 3	Color (00080)		Total Solids (00500)	
Reason Sampled 63-64	Turb (00070)		Susp. Solids (00530)	
Proportional Composite Uniform 65	pH ,(00403)		Set Solids (00545)	
Sample Temporal 66 Spatial	Spec. Cond (00095)	,	Total Diss Solids (00515)	
Aliquots 67-68	Alk (00410)		NO₂N (00615)	
Flow Estimated 69 Measured	pH4 (00436)		NO₃N (00620)	
Condition Above - 1 Normal - 2 Flood - 5 80 Selow - 3 No Flow - 4 CARD (2	PH8 (70508)		NH ₂ N (00610)	
Stream Flow-CFS (00061)	T.O.C. (00680)		Kjel-N (00625)	
Stream Flow-MGD (50051)	C.O.D. (00340)			
P w-MGD (50050)	5-Day BOD (00310)		Hardness (00900)	
Gage Reading-Ft. (00065)	T (00665)		Ca (00916)	
Temp (C) (00010)	Р то (00666)		Mg (00927)	
pH (00400)	Al-Tot ug/I (01105)		SO ₄ (00945)	
D.O. (00300)	Cd-Tot ug/1 (01027)		CI (00940)	
CI (50060)	Cr-Tot ug/I (01034)		F (00951)	
Hal Br (71871)	Cu-Tot ug/I (01042)		MBAS (38260)	
I (71866) Spec Cond . (00094)			Phenois Dr. (46002)	
	Fe-Tot ug/I (01045)		ug/1 Ds (32730)	
Appearance (46001)	Mn-Tot ug/I (01055)		Cyanide (00720)	
Odor (01330)	Ni-Tot ug/I (01067)		()	
How Shipped Porclator Date 15/8 Legal Seal No. 2273596, 94, 797, 78	Pb-Tot ug/I (01051)			
Received by Condition of Seal	Zn-Tot ug/I (01092)	w	(<u></u>	

00 00 00 00 00 00 00 00 00 00 00 00 00	EST 0095 0403 0410 0610 0620 0625 0680 0719 0720 0929 0940 0945 0951 1002 1007 1027 1032 1034	DESCRIPTION SPEC COND PH LAB T ALK CACO3 T NH3-N T NO3-N T KUELD N T ORG C MG/L CN,FREE HBG CN NA,TOT MG/L CHLORIDE SO4 TOT F,TOTAL AS,TOTAL BA TOT UG/L CR HEX,UG/L <	NONE LATITUDE RESULT 1485.0000 5.8000 18.0000 72.7000 3.2500 75.0000 7.1000 9.0000 0.1230 9.4400 7.0000 558.0000 0.6900 9.0000 26.0000 20.0000 10.0000	HG/L MG/L MG/L MG/L MG/L MG/L MG/L MG/L M	G G G G G G G G G G G G G G G G G G G	r AHAL	GITUDE 00:00:0	NDARD ANALO.O			
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00 00 00 00 00 00 00 00 00 00 00 00 00	0929 0940 0945 0951 1002 1007 1027 1033	NA,TOT MG/L CHLORIDE SO4 TOT F,TOTAL AS,TOTAL BA TOT UG/L CD TOT UG/L CR HEX,UG/L <	9.4400 7.0000 558.0000 0.6900 9.0000 26.0000	MG/L MG/L MG/L MG/L UG/L UG/L UG/L	6 6 6 5	MJA BLF KLS EVC DES MJA	2/09/87 1/12/87 1/12/87 1/14/87 1/16/87				
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0: 0: 0: 0: 0: 0: 0:	1032	CR HEX,UG/L <					2/09/87				
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5120 Butler Pike Plymouth Meeting Pennsylvania 19462 215-825-3000 Telex 846-343

Woodward Clyde Consultants

August 27, 1986 84C2145

DER-RECEIVED NORRISTOWN

RECEIVED

AUG 29 1986r. Michael Bobeck

Pennsylvania Department of Environmental Resources 1875 New Hope Street Norristown, Pennsylvania 19401

SEP 1 9 1986

Pennsylvania RCRA Enforcement

Section - EPA . Region III

PHILADELPHIA COKE COMPANY PHILADELPHIA, PENNSYLVANIA

Dear Mr. Bobeck:

This letter represents an addendum to the Groundwater Sampling and Analysis Plan for the above-referenced facility. The original plan is dated March 4, 1985, and was approved by DER on September 12, 1985. This addendum is based on our meeting on August 4, 1986 at your office.

This addendum is to include three new elements to the groundwater program, as described below.

INDICATOR PARAMETERS

For all subsequent sampling rounds, the indicator parameters will be analyzed and reported in quadruplicate for the background well. The indicator parameters are:

pH specific conductance total dissolved solids total organic halogens total organic carbon

REFINEMENT OF GROUNDWATER FLOW CONDITIONS

Data available from the previous six quarters of monitoring water levels indicate that water levels are highest in W-2 and lowest in W-4. Although by cursory appearance this would imply that W-2 is upgradient and W-4 is downgradient, WCC believes there are other important considerations:

- o W-2, by evidence of the groundwater chemistry, is a downgradient well, with respect to the vaste management unit (tar decanter area).
- o Regionally, the groundwater flow direction is southeasterly, towards the Delaware River; this puts W-4 on the regional background side of the plant.
- o The water levels in the vicinity of W-4 are probably artificially depressed by the effects of the industrial and/or sanitary sewers in the area.



Consulting Engineers, Geologists and Environmental Scientists

This addendum includes a program to investigate the possibility of a depressed water table near W-4, with the objective of demonstrating that W-4 represents background conditions. This program consists of the installation of one or two observation wells.

The first well (W-5) would be located adjacent to the east side of the sewer lines. Water levels will be monitored in W-5 and compared to W-4. If the water level is lower in W-5 than W-4, this condition would demonstrate the impact of the sewer and would indicate a localized flow reversal near W-4. If this is the case, no other well would be drilled.

If the water level in W-5 is higher than in W-4, a second observation well will be drilled at a location approximately half way between W-2 and W-4. This well will be used together with the other wells to help establish gradients on an areawide basis.

Both new observation wells will be installed to the top of the clay unit, at an approximate depth of 12 feet. The wells will be constructed of 2 inch ID PVC casing and screening, with 10 feet of screen. The annular space will be sealed with bentonite above the gravel pack and with cement above the bentonite. Protective casing will be installed, and the wells will be developed.

A second aspect of the program to establish W-4 as background is to plot the locations and elevations of local sewer lines on a map of the site. If the sewers are affecting groundwater levels, there should be a correlation between the water elevations measured in the wells and the invert elevations of the sewers.

AQUIFER TESTING

Slug tests will be performed in all existing monitoring wells at the plant. These tests will be used to calculate estimates of aquifer permeability, which will be used in an evaluation of groundwater flow rates.

SCHEDULE AND REPORTING

The work described in this addendum can be initiated within 2-3 weeks after approval by DER; however, the drilling described above will be performed in conjunction with the soil sampling program. (The revised Work Plan for that program is also under review by DER.)

All the data and analyses derived from the programs described in this addendum will be reported to DER. As currently planned, an Assessment Report is scheduled to be prepared and submitted following completion of the soil sampling program. The Assessment Report will include:

- o results and interpretation of the soil sampling program
- o summary of results and analysis of all groundwater quality data to date
- o results of slug testing and calculations of flow rates
- o evaluations of upgradient/downgradient conditions in W-2 and W-4
- o evaluations of the impacts, if any, of the sewers on groundwater levels

Woodward-Clyde Consultants

-3-

Please call if you have any questions regarding the information contained in this addendum.

Very truly yours,

WOODWARD-CLYDE CONSULTANTS

Peter R. Jacobson, CPGS

Project Manager

PRJ/ten/WM 27A

cc: James L. Hogeboom

Green

HAZARDOUS WASTE INSPECTION REPORT TSD Facilities - Part A

. Am
Date of inspection 7/8/86 Time start 10:00 mm Time finish 11:30 Am
Name of inspector Michael M. Bobek
Company, installation name Philadelphia Coke G.
Location 4501 Richmond St., Phila.
County Phila. Municipality Phila.
Identification number PAD 200 427 806
Name of responsible official James Hoge boom
Title V. P. of Operations
"-iling address P.O. Box 6561, Mesa, Aritona 85206
Area code and phone no.
Name of person interviewed Ed Gallagher
Title Security Guard
Mailing address (if different from above) 4501 Richmond St., Bela, Pa. 11137
Area code and phone no.
1. Site characterization:
a. Treatment - surface impoundments, chemical, physical, biological
b. Storage - Containers, Lanks, surface impoundments, waste piles
c. Disposal - land treatment, landfill, incineration, thermal treatment
d. Use, reuse, recycle, reclaim
2. Does the facility generate hazardous wastes? \(\square \) Yes \(\square \) No \(\square \) \(\lambda \) \(
3. Types of hazardous waste produced by Hazardous Waste Number: DIV OF COMPL & MONIT.
4. Are hazardous wastes transported off-site by the facility? Yes No

Date of Inspection	7/8/86	Ident	ification Num	ber PAD 000 \$27 806
Company, Installation Nam	, ,	ohia Coke Co	· · · · · · · · · · · · · · · · · · ·	
County Phila.	7 i	Municipality	<i>311</i>	
			•	
The 4th Quar	for sampling	was completed	on Janu	ary 23, 1886
with data subm	itted to the	Department o.	n April 8	1986 by
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This inspection report is Environmental Resources, The findings of this inspection are during the inspection are the results of laboratory forthcoming, confirming a	Bureau of Solid Interpretation are shown andicated. Violations income in	Vaste Management, in this report. Lations may also b view of Department licated herein and	inspected the Any violations e discovered v records. No	above installation. s which were uncovered upon examination of tification will be
Person Interviewed (signature)	iture) Jak	les Hogobour	Date <u>7</u> /	10/86
Inspector (signature)	Muhat	U. Bobek	Date	7/8/86

HAZARDOUS WASTE INSPECTION REPORT Generators - Part A

Date of inspection 7/8/86 Time start 10:00 Time finish 11:30 Time
Name of inspector Michael M. Bolek
Company, installation name Philadelphia Coke Co.
Location 4501 Richmond St.
County_ Phila. Municipality_ Phila.
Identification number PAD 000427906
Name of responsible official Tames Hoge boom
Title VP of Operations
Mailing address P.O. Box 6561, Mesa, Arizona, 85206
Area code and phone no.
Name of person interviewed Ed Gollanka
Name of person interviewed Ed Gallagher Security Guard
Mailing address (if different from above) 4501 Richard St, Phila, Pa 19137 Area code and phone no.
1. Current waste handling method:
a. On-site treatment, storage, disposal
b. On-site use, reuse, recycle, reclaim
c Off-site _ treatment, _ storage, _ disposal
d.
2. Amount of hazardous waste produced:
akg./mo.
Ag./yr.
No new generation of waster former wastes \$1087,0003
4. Are hazardous wastes transported off-site by the generator? Yes No

HA: DOUS WASTE INSPECTION REPORT Part C - Comments

Date of Inspection	7/8/86		[dentification	Mumber
Company, Installation N		hiladelphia	Coke Co.	
County Phile	<u>٠</u>	Municipality	41.	· Head Control
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work. Therefor	re no recent	production	of demo.	myslete demolitical waste has occurred
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Person Interviewed (sign		110 ge 80 om	Date	7/10/865
Inspector (signature)	Julian State of the State of th	34.086cl2	Date	7/8/86



Woodward-Clyde Consultants

Consulting Engineers, Geologists and Environmental Scientists 5120 BUTLER PIKE PLYMOUTH MEETING, PENNSYLVANIA 19462

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U.S. EPA Region III				Harry Harbold (3HW11) RE Philadelphia Coke				
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If enclosures are not as noted, kindly notify us at once.

Peter R. Jacobson

Pennsylvania RCRA Enforcement Section - RPA - Region III

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5120 Butler Pike Plymouth Meeting Pennsylvania 19462 215-825-3000 Telex 846-343

Woodward-Clyde Consultants

April 8, 1986 84C2145

Bureau of Waste Management
Pennsylvania Department of Environmental Resources
1875 New Hope St.
Norristown, PA 19401

Attention:

Mr. Bruce Beitler

FOURTH-QUARTER GROUNDWATER SAMPLING RESULTS
PHILADELPHIA COKE PLANT
PHILADELPHIA, PENNSYLVANIA

Gentlemen:

On behalf of Philadelphia Coke Co., this letter presents a report of the fourth-quarter groundwater quality results from the four monitoring wells at the Philadelphia Coke Plant. The data are presented in accompanying tables and are described briefly below; however, detailed evaluation of the groundwater data will be performed for the first year's data along with the soil sampling data from the soil sampling program to be performed at the plant. The work plan for the soil sampling program will be submitted to DER under separate cover.

WATER LEVELS

WCC measured water levels in the four on-site monitoring wells on January 23, 1986, (Table 1). As with the water levels from the first three sampling rounds, the third quarter's water level data indicate that the water table is highest near W-2, with a sub-radial flow pattern toward the other wells. The steepest gradient exists toward W-4, which has the lowest water table elevation. Water levels taken approximately four hours apart exhibited insignificant differences.

WATER QUALITY

Tables 2 and 3 present the analytical results from the groundwater samples collected on January 23, 1986. The general water quality parameters are

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-2-

presented on Table 2. These data indicate trends similar to earlier sampling rounds. W-2 generally exhibits the highest concentrations of most parameters. Compared to earlier results, the fourth-quarter results show slight decreases in concentration in all wells, except for some indicator parameters in W-2.

Table 3 summarizes the analytical results for the priority pollutant organics. Two volatile organic compounds, eleven base/neutral compounds, and two acid compounds were detected. Except for toluene in W-1, the only volatile detected is chloroform, in trace quantities. No acid extractables or base/neutrals were detected in W-1, W-3, or W-4 (excluding the trace amounts of bis(2-ethylhexyl)phthalate). Most of the compounds detected in W-2 were detected in the previous samplings, although the concentrations in January are lower than previously determined.

CONCLUSIONS

The data from the fourth-quarter monitoring are similar to the previous monitoring results, in terms of groundwater flow directions and contaminant chemistry. Following the collection of the soil sampling data, a more detailed assessment of the entire year's groundwater data will be performed and presented.

If you have any questions about the data in this report, or need additional data, please do not hesitate to call.

Very truly yours,

WOODWARD-CLYDE CONSULTANTS

Peter R. Jacobson Project Manager

PRJ/tjr/WM18

cc: James Hogeboom

TABLE 1 GROUNDWATER LEVELS PHILADELPHIA COKE PLANT OCTOBER 15, 1985

Well No.	Depth to Water, feet Below Top of Casing	Top of Casing Elevation, feet msl	Water Table Elevation, feet msl	Time Measured,am
W-1	3.95	10.94	6.99	9:26
W-2	5.77	15.31	9.54	9:34
W-3	6.20	14.46	8.26	9:20
W-4	13.21	15.17	1.96	9:13

TABLE 2 SUMMARY OF GENERAL WATER QUALITY ANALYSES WELLS SAMPLED JANUARY 23, 1986

Parameter	<u>Units</u>	<u>W-1</u>	<u>W-2</u>	<u>W-3</u>	<u>W-4</u>
Alkalinity, Total	mg/l	30.2	630	39.3	31.1
Ammonia as N	mg/l	105	682	1.27	0.74
Total Coliforms Biochemical Oxygen	Colonies/100 ml	< 2	< 2	< 2	2
Demand Total Organic Carbon Chemical Oxygen	mg/l mg/l	$\begin{smallmatrix}0.9\\2.73\end{smallmatrix}$	515 194	4.65 1.39	3.95 2.55
Demand Chloride	mg/l mg/l	50.4 12.0	1500 773	36.0 11.6	43.8 5.5
Cyanide Fluoride	mg/l	0.045	24.6	0.006	0.003
Chromium, Dissolved	mg/l mg/l	0.69 < 0.001	$\begin{array}{c} 3.80 \\ 0.002 \end{array}$	$\begin{array}{c} \textbf{0.43} \\ \textbf{0.002} \end{array}$	0.17 < 0.001
Iron, Dissolved Manganese, Dissolved	mg/l mg/l	< 0.1 6.21	0.35 5.53	< 0.1 0.67	<0.1 0.59
Sodium, Dissolved Nitrate as N	mg/l mg/l	$\substack{12.2\\1.20}$	232 <0.15	25 11.9	1.90
Total Organic Halogens	mg/l	< 5	5180	< 5	$egin{array}{c} 1.25 \ 6 \end{array}$
Phenolics pH	mg/l Standard	< 0.005 6.71	$\begin{matrix} 0.72 \\ 7.75 \end{matrix}$	< 0.005 6.40	<0.005 6.50
Total Dissolved Solids Specific Conductance	mg/l µmhos/cm@25 °C	1400 1670	5180 7750	511 702	163 158
Sulfates	mg/l	1020	3650	249	30

TABLE 3
SUMMARY OF PRIORITY POLLUTANT ANALYSES
RESULTS SHOWN FOR DETECTED PARAMETERS ONLY
WELLS SAMPLED JANUARY 23, 1986
ALL VALUES IN μ g/l (ppb)

VOLATILE COMPOUNDS	<u>W-1</u>	<u>W-2</u>	<u>W-3</u>	<u>W-4</u>	Trip Blank
Jan John John John John John John John Joh	1				
Toluene	7.7	< 2.0	< 0.2	< 0.2	< 0.2
Chloroform	BDL	< 10	< 1.0	BDL	< 1.0
BASE/NEUTRAL COMPOUN	IDS .		4.		
Fluoranthene	< 5	. 12	< 5	< 5	NA
Pyrene	< 5	9	< 5	< 5	NA
Naphthalene	< 5	420	< 5	< 5	NA.
Phenanthrene	< 5	36	< 5	< 5	NA
Acenaphthylene	< 5	22	< 5	< 5	NA
Acenaphthene	,< 5	8	< 5	< 5	NA
Fluorene	,< 5	45	< 5	< 5	NA
Benzo(b)fluoranthene	< 25	\mathtt{BDL}	< 25	< 25	NA
Benzo(a)pyrene	< 25	BDL	<25	<25	NA
Bis(2-ethylhexyl)phthalate	BDL	\mathtt{BDL}	BDL	BDL	NA
Hexachloroethane	< 5	. 83	< 5	< .5	NA
ACID COMPOUNDS			,		•
Phenol	<10	167	<10	<10	NA
2,4-dimethylphenol	< 10	479	<10	<10	NA NA
-	E				

NA = not analyzed



NORRISTOWN

JAN 23 1986

Woodward-Clyde Consultants

January 17, 1986 84C2145

Pennsylvania Department of Environmental Resources 1875 New Hope St. Norristown, PA 19401

Attention:

Mr. Philip Rotstein

THIRD-QUARTER GROUNDWATER SAMPLING RESULTS PHILADELPHIA COKE PLANT PHILADELPHIA, PENNSYLVANIA

Gentlemen:

This letter presents a report of the third-quarter groundwater monitoring results from the four wells at the Philadelphia Coke Plant. The data are presented in accompanying tables and are described briefly below; however, an extensive evaluation of the data is not warranted now, as it has been performed for the first and second quarters' data. Furthermore, a more extensive assessment of the first year's data will be performed after the fourth quarter's data have been collected.

WATER LEVELS

WCC measured water levels in the four onsite monitoring wells on October 15, 1985 (Table 1). As with the water levels from the first two sampling rounds, the third quarter's water level data indicate that the water table is highest near W-2, with a sub-radial flow pattern toward the other wells. The steepest gradient exists toward W-4, which has the lowest water table elevation.

WATER QUALITY

Tables 2 and 3 present the analytical results from the groundwater samples collected on October 15, 1985. The general water quality parameters are



Offices in Other Principal Cities

presented on Table 2. These data indicate trends similar to earlier sampling rounds. W-2 generally exhibits the highest concentrations of most parameters. Compared to earlier results, the third-quarter results show relatively consistent levels in W-2, slight decreases in concentration in W-1 and W-3, and a significant improvement in quality in W-4.

Table 3 summarizes the analytical results for the priority pollutant organics. Four volatile organic compounds and ten base/neutral compounds were detected. No volatiles or base/neutrals were detected in W-3 or W-4, and only three base/neutral compounds were detected in W-1. Three-quarters of the compounds detected in W-2 were detected in the previous samplings, although the concentrations in October are higher than previously determined. All of the compounds detected, with the exception of methylene chloride, are compounds that are related to coal processing operations.

CONCLUSIONS

The data from the third-quarter monitoring are similar to the previous monitoring results, in terms of groundwater flow directions and contaminant chemistry. Following the collection of the next quarter's results, a more detailed assessment of the entire year's data will be performed and presented.

If you have any questions about the data in this report, or need additional data, please do not hesitate to call.

Very truly yours,

WOODWARD-CLYDE CONSULTANTS

Peter R. Jacobson Project Manager

PRJ/clo/WM18

TABLE 1 GROUNDWATER LEVELS PHILADELPHIA COKE PLANT OCTOBER 15, 1985

Well No.	Depth to Water, feet Below Top of Casing	Top of Casing Elevation, feet msl	Water Table Elevation, feet msl	Time Measured,am
W-1	2.43	10.94	8.51	9:25
W-2	4.34	15.31	10.97	9:34
W-3	5.37	14.46	9.09	9:31
W-4	10.36	15,17	4.81	9;39

TABLE 2 SUMMARY OF GENERAL WATER QUALITY ANALYSES WELLS SAMPLED OCTOBER 15, 1985

Parameter	<u>Units</u>	<u>W-1</u>	<u>W-2</u>	<u>W-3</u>	<u>W-4</u>
Alkalinity, Total	mg/l	62.9	709	47.1	17.9
Ammonia as N	mg/l	42	1520	6.30	0.26
Total Coliforms	Colonies/100 ml	< 2	33	5 >	2400
Biochemical Oxygen					•
Demand	mg/l	5.6	7.9	0.9	1.0
Total Organic Carbon	mg/l	6.92	4.54	3.10	2.78
Chemical Oxygen			-		
Demand	mg/l	14.5	1780	14.5	<7.0
Chloride	mg/l	13.2	1990	17.0	7.3
Cyanide	mg/l	0.086	84	0.025	0.002
Fluoride	mg/l	0.75	2.5	0.28	0.06
Chromium, Dissolved	mg/l	0.001	0.012	0.006	< 0.001
Iron, Dissolved	mg/l	4.5	0.8	0.1	0.2
Manganese, Dissolved	mg/l	6.12	0.29	1.04	0.31
Sodium, Dissolved	mg/l	13	420	41	2.7
Nitrate as N	mg/l	0.97	0.15	15	7.0
Total Organic Halogens	mg/l	< 5	< 5	< 5	< 5
Phenolics	mg/l	<0.005	3.85	< 0.005	<0.005
рН	Standard	6.45	8.31	6.15	5.89
Total Dissolved Solids	mg/l	1400	4190	762	218
Specific Conductance	μ mhos/cm@25 $^{\circ}$ C	1620	9750	903	186
Sulfates	mg/l	990	2700	360	32

TABLE 3
SUMMARY OF PRIORITY POLLUTANT ANALYSES
RESULTS SHOWN FOR DETECTED PARAMETERS ONLY
WELLS SAMPLED OCTOBER 15, 1985
ALL VALUES IN µg/l (ppb)

VOLATILE COMPOUNDS	<u>W-1</u>	<u>W-2</u>	<u>W-3</u>	<u>W-4</u>	Trip <u>Blank</u>
Methylene Chloride Benzene Toluene Ethylbenzene	9.2 < 1.0 < 0.2 < 1.0	< 1.0 86 81 43	< 1.0 < 1.0 < 0.2 < 1.0	< 1.0 < 1.0 < 0.2 < 1.0	< 1.0 < 1.0 < 0.2 < 1.0
BASE/NEUTRAL COMPOU	NDS				
Anthracene Fluoranthene Pyrene Naphthalene Phenanthrene Acenaphthylene Acenaphthene Fluorene benzo(b,k)fluoranthene benzo(a)pyrene	10.3 21 11 < 5 < 5 < 5 < 5 < 5 < 25 < 25	<pre>< 5 191 126 497 347 56 15 120 32* 96</pre>	< 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5	< 5 < 5 < 5 < 5 < 5 < 5 < 5 < 25 < 25 <	NA NA NA NA NA NA NA NA

^{*}Benzo(b) fluoranthene and benzo(k) fluoranthene could not be resolved; value shown indicates the sum of both compounds

NA = not analyzed

Grean

Date Prepared

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF SOLID WASTE MANAGEMENT

	T		_		
I.D. N	lumb	er			

Hazardous Waste Management

Facility Inspection Checklist for Compliance with Interim Status Standards Covering Ground-Water Monitoring

				01,	TORIVI 4				
	Facili	ty Na	ame	Phila Ca	ske 6	Facility Permit	Number		
	Coun	ty	,	Phi	la	Municipality	radifibei	01.	-/.
	Comp	any	Address	4501 Ric	Shmond St 0A 19137	Inspector's Na	me	Phil	ip Retst
	Comp Title	any	Contact/Official	James 1 Plant	toge beam Engineer	Branch/Organiz Date of Inspec		Wuste	Mgm +.
	Туре	of fa	cility: (check ap	propriately)			Yes /	No	Unknown
		a) b) c) d)	surface impour landfill land treatment	facility			<u></u>		
	Groun		disposal waste eter Monitoring						
	1.	Was			rogram reviewed	prior to site visit?			
		a)	Was the ground site inspection?	l-water progra	m reviewed at th	e facility prior to			
The state of the s	2.	facil	The minbact of the	tial to affect o	y ground-water s	f determining the system which the eemed necessary (1)	/		
	3.	Has dien	at least one mor t from the limit o	nitoring well be f the waste m	een installed hyd anagement area	fraulically upgra- 75.265(n)(3)(i)	VA-		
			Are ground-wate tative of backgrothe facility (as e depths)?	Juna arouna-w	Vater quality and	not affected by r, locations, and	.,4	\sqrt{A}	
	l	iste	d separate from	landfill for cor	nvenience of ide	ntification.		CIT	

DIV. OF HAZARDOUS Y

			163	700	Unknown
- 4.	do	ve at least three monitoring wells been installed hydraulically wngradient at the perimeter of the waste management area? .265(n)(3)(ii)	VA		
	a)	Do well number, locations, and depths ensure prompt detection of any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the groundwater?			
	b)	Have the locations of the monitoring wells been approved by the Department? 75.265(n)(3)(iii)			
5.	Hav	ve the locations of the waste management areas been verified to aform with information in the ground-water program?			
	a)	If the facility contains multiple waste management components, is each component adequately monitored?			
6.	ing	the numbers, locations, and depths of the ground-water monitor- wells agree with the data in the ground-water monitoring system gram? (If "No", explain discrepancies on an attachment.)	_/_		
7.	We	Il completion details: 75.265(n)(5) and 75.265(n)(6)	,		
	a)	Are wells properly cased?	_/		
	b)	Are wells screened (perforated) and packed where necessary to enable sampling at appropriate depths?	_/		
	c)	Are annular spaces properly sealed to prevent contamination of samples and the ground water?	<u> </u>		
8.	Has 75.	a ground-water sampling and analysis plan been developed? 265(n)(7)	1		
	a)	Has it been followed?	·/		
	b)	Is the plan kept at the facility?	VA		
	c)	Does the plan include procedures and techniques for:	,		
		1) Sample collection?			
		2) Sample preservation?	✓ ———		
		3) Sample shipment?			1
		4) Analytical procedures?	<u>/</u>		
		5) Chain of custody control?	V		

	^ .		2	4.	Yes	No	Unknown
	Are qua	e the required arterly for the	parameters in ground first year? 75.265(n	-water samples being teste (8) and 75.265(n)(9)	d	VA	
	a)	Are the gro	und-water samples ar	alyzed for the following:	Ý .		
-		1) Parame as a dr	ters characterizing the inking water supply?	suitability of the ground-wate 75.265(n)(8)(i)	er	<u> </u>	,
		2) Parame 75.265	eters establishing (n)(8)(ii)	ground-water quality	?		
	•	3) Parame tion? 7	ters used as indicator 5.265(n)(8)(iii)	s of ground-water contamina		· · · · · · · · · · · · · · · · · · ·	
•		itia mo	il background concent	e for the establishment of in rations of all parameters in a erly during the first year	il :	4	
		me ead	asurements obtained	eter, are at least four replicate at each upgradient well fo ring the first year of monitor	r		
		arıt par	thmetic mean and ameter concentration	alculate the initial background variance of the respective s or values obtained from the the first year? 75.265(n)(10) }	<u>V</u>	
	b)	For facilities ving and anal	which have completed ysis requirements:	first year ground-water sampl	-		
		water	mples been obtained quality parameters (n)(11)(i)	and analyzed for the ground at least semi-annually?	-		N.A.
		of grou	mples been obtained a und-water contamin (n)(11)(ii)	nd analyzed for the indicators ation at least quarterly?	<u></u>	· .	NA
	c)	Were ground monitoring w	d-water surface elev vell each time a sampl	ations determined at each e was taken? 75.265(n)(12)		•	
:	d)	nually (by Jar	und-water surface ele nuary 31) to determine constructed? 75.265	vations evaluated at least an- whether the monitoring wells (n)(17)			NA.
	, e)	or depth of r	nonitoring wells was	tion of the number, location, necessary, was the system 265(n)(3)? 75.265(n)(17)	-		NA
	f)	Prior to any changes appr	construction modificated in writing by the	cation, were any proposed Department? 75.265(n)(17)		· · · · · · · · · · · · · · · · · · ·	NA.
		*				* * * * * * * * * * * * * * * * * * * *	

			. *		Yes	No	Unknown
10.	Ha pro	s an ogran	outlir n bee	ne of a ground-water quality assessment and abatement en prepared? 75.265(n)(13)			
	a)	Do	es it	describe a program capable of the following:			
		1)	CO	termining which hazardous waste or hazardous wastenstituents have entered the ground water? .265(n)(13)(i)	V		
		2)	wa	termining the rate and extent of migration of hazardous ste or hazardous waste constituents in ground water? .265(n)(13)(ii)			
		3)	Det	termining concentrations of hazardous waste or hazarus waste constituents in ground water? 75.265(n)(13)(iii)			
		4)	Aba	ating any ground-water contamination attributable to the ardous waste management facility? 75.265(n)(13)(iv)			
	b)	mea	asure	e first year of monitoring, have at least four replicate ements of each indicator parameter been obtained for taken from each well monitored? 75.265(n)(14)			NA.
		1)	We	re the results compared with the initial background means in the upgradient well(s) determined during the first year?			NA.
			(i)	Was each well considered individually?			NA
			(ii)	Was the Student's t-test used at the appropriate level of significance (see Chapter 75, Subchapter D, Appendix III)?			N.A.
		2)	Was	s a significant increase (or pH decrease as well) found he:			
			(i)	Upgradient wells			WA.
			(ii)	Downgradient wells		•	MA
				If "Yes", Hazardous Waste Management Form 5 must also be completed.			
11.	Have 75.2	e red 265(r	cords	been kept of the analyses required in paragraphs through 75.265(n)(11)? 75.265(n)(18)(i)			
12.	Have the t	e rec	ords of sa	been kept of ground-water surface elevations taken at mpling for each well (75.265(n)(12))? 75.265(n)(18)(i)			
3.	Have (75	e reco 265(ords I	been kept of required elevations in indicator parameters 4))? 75.265(n)(18)(i)			

	٠,	the state of the s	Yes	No	Unknown
4.	Has the Departm	following ground-water information been reported to the nent: 75.265(n)(18)(ii)			
	(a)(i)	During the first year, initial background concentrations of parameters listed in 75.265(n)(8)(i) within 15 days after completing each quarterly analysis required during the first year?		<u> </u>	
·	(ii)	For each well, have any parameters whose concentrations or values have exceeded the maximum contaminant levels allowed in drinking water supplies been separately identified?			
	(b)(i)	Semi-annual measurements of the parameters establishing ground-water quality (75.265(n)(8)(ii)) for each ground-water monitoring well taken at the end of the first (April 1) and third (October 1) quarters?			_ N A.
	(ii)	Have any significant differences from the initial background found in the wells been separately identified?			N.A.
	(iii)	Has this information been submitted as part of the quarter- ly report (75.265(m)) for those facilities receiving hazardous waste from off-site sources?			NA.
	(c)(i)	Quarterly measurement of the parameters used as indicators of ground-water contamination (75.265(n)(8)(iii)) and the required evaluations of these parameters under 75.265(n)(14)?			
	(ii)	Have any significant differences from initial background found in the upgradient wells been separately identified and included in the quarterly submission?			MA.
	(d)(i)	Quarterly results of the evaluation of ground-water surface elevations under 75.265(n)(17)?		/	

If applicable, has a description of the response to that evaluation been included?

(11)

orsto from an Shi vi outs are detected then re nediculineasons Wesprechure, It Significant leids of indicator Tesolts thill antin etthe adaquay of the closure Our taborday dos chanical analysis. Be senses of twe begins thewithin estretel lugan-be enduries. Sumples to l'ected at discrete intensel true à select no. un'il be sinpped to en approved The procedure will consist of the placeinnitet Temoral. partly because DER passinal were not.
pressul along the precess. been raised in the pust regarding the adequery or thosure in terns of waste and contaminated soils Why rouch closure proceeding. Valid questions have to the collection of representative soil, till and la The plan shill octline proceedings and techniques , 2= der /20 24 e 4913001 12 Designable time them would be 30 clays. From plum within a specified parod of Duc. A The trulity should be requested to submit the The actual unther plan is still outstonding. the decemb to studge lagon area. program to be implemented in the vicinity of puperc of discussing the proposed soil sampling Trispection tonducted 1/16/86 for the expressed Phila Cote Co.

Evilence of groundluster car towns, a some a selver Evaluation of the 1st years date and seconnulation in 15 to port de a status ve port entering an interpolation At the end of the kist year of mon thing, the consultant Monton'ng magner : Come In to being after closure Much the Holate reason for drunking this axtensite lorres ponduce of three quarter of Madie legic parant la constituents et por ray UNICOSSUN Such as pesticides has breides and - Willinvolve a restrict no of parameters deconed -full sens et RCDA parameters for the fist two its agreed the tacility, analyzed suples to the of groundlunks antemination have not be taken as Meplilate massimmils of paiamates used as indicatus Pleunted levels at cost tare onethorats in mue located. Results of three questes of nonstring indicate

The lagger das post low already trests, there for

menitening report has been evalueted. with tacility representatives after the 15t years Closure period. This matter should be discussed USSUSS now I abot mont mode donny the post unalysis at this time gover the nature of centerinates. The has the placed in on The I fail to see the need for statistical Cansistant trench in levels of cen temonals possests. active groundless recovery/treatment it a In sideration should be given , at some point, to

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HAZARDOUS WASTE INSPECTION REPORT TSD Facilities - Part A

Date of inspection 1/16/86 Time start 10:00 Time finish 12:00
Name of inspector Michael M. Bolek
Company, installation name Philadelphia Coke Co.
Location 4507 Richmond St.
County Phile. Municipality Phile.
Identification number PAD 600427906
Name of responsible official James Hoseboom
Title V.P. of Operations
Mailing address P.O. Box 6561, Mlsa, Arizona 85206
Area code and phone no.
Name of person interviewed Ed Gallagher, Pete Tacobsen, James Hogelown, P. Kipin
Title Security Grand, Woodward V.P. of Operations Kipm
Mailing address (if different from above) 450/ Richmond St., Phila, Pa. 19137
Area code and phone no.
1. Site characterization:
a Treatment surface impoundments, chemical, physical, biological b Storage containers tanks surface impoundments unstainers
waste piles
c. Disposal - Dand treatment, Dandfill, Dincineration, Dandfill ment
d: Use, recycle, reclaim
2. Does the facility generate hazardous wastes? \(\sumsymbol Yes \(\sumsymbol No \)
3. Types of hazardous waste produced by Hazardous Waste Number:
None produced at this time *1087, 2003
4. Are hazardous wastes transported off-site by the facility? Yes No
DECEUVE
JAN 2 4 1986

Date of Inspection 1/16/86 Identification Number
Company, Installation Name Philadelphia Coke Co.
County Phile Municipality Phile
Closure of facility is proceeding. Mr. Kipin is waiting for blasting permits from the City in order to continue demolition
- dusting permits from the city in trole to continue (remotition
A meeting was conducted with Messes. Hogeboom, Tackbeen, Kipin,
P. Rotstein & M. Bobek to identify soil sampling points for the
Seconter took pits, adjacent lagoon and the tor plains
It is anticipated that Woodwood - Clybe will be preparing the
Soil sampling proposals for submission to DER for mid- Februar
An additional sampling area was located on site with Mr. Hogeboom
where for and line material was nixed.
The location of a cross-site industrial sewer line approx 12 diameter
was istertified, but its impact on the groundwater monitoring well near the
present quark house was not determined during this inspection.
Currently, the next quarterly sampling is scheduled for March!
There was Visussion concerning the need for the site operator & the
consultant to closely coordinate with DER when the soil sampling is
conducted since visual determinations of contamination may be made
at the sampling time.
This issue is
This inspection report is official notification that a representative of the Department of Environmental Resources, Bureau of Solid Waste Management, inspected the above installation. The findings of this inspection are shown in this report. Any violations which were uncovered during the inspection are indicated. Violations may also be discovered upon examination of the results of laboratory analyses and review of Department records. Notification will be forthcoming, confirming any violations indicated herein and listing any additional violations.
Person Interviewed (gianature)
Inspector (signature)

HAZARDOUS WASTE INSPECTION REPORT Generators - Part A

Date of inspection 1/16/85 Time start 10:00 Time finish 12:00
Name of inspector Michael M. Bobek
Company, installation name Philadelphia Colo 15.
Location 4501 Richmond St.
CountyPhilaMunicipality Phila
Identification number PAD 000427906
Name of responsible official James Hogeboom
Title V.P. of Operations
Mailing address P.O. Box 6561, Mesa, Anizona 85206
Area code and phone no.
Name of person interviewed Ed Gallagher, Pate Jacobser James, Peter kipin Woodward. VPof Kipin Tidustr
("itle Secretary Guard, Olyde Operations Kipin Tidust
Mailing address (if different from above) 450/ Richmond St, Phila, PA 19/37
Area code and phone no.
1. Current waste handling method:
a. On-site treatment, storage, disposal
b. On-site use, reuse, recycle, reclaim
c Off-site _ treatment, _ storage, _ disposal
d. Off-site use, reuse, recycle, reclaim
2. Amount of hazardous waste produced:
kg./mo.
bkg./yr.
108h
Hazardous Waste Produced by Hazardous Waste Number:
None produced at this time KOST, DOGS OF HAZARDOUS WASTE
4. Are hazardous wastes transported off-site by the generator? Yes No

1/16/86

Date ___

1000 de 27906
Date of Inspection 1/16/86 Identification Number
DI.
County Name Philadelphia Coke Co Municipality Phila
Closure of facilities is proceeding. Mr. Kipin is waiting for
Closure of facility is proceeding. Mr. Kipin is waiting for blasting permits from the City in order to continue demolition
Thisting permits from the Care to the contract of
A meeting was conducted with Messrs. Hogeboom, Tacobsen, Kipin,
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during the inspection are indicated. Violations may also be discovered upon examination of
the results of laboratory analyses and review of Department records. Notification will be
forthcoming, confirming any violations indicated herein and listing any additional violations Sent to Jim Hogeboom 1/17/86
Person Interviewed (signature) Date

Michael She Bolck

Inspector (signature)

5120 Butler Pike Plymouth Meeting Pennsylvania 19462 215-825-3000 Telex 846-343

DER-RECEIVED NORRISTOWN

OCT 3 1985

Woodward-Clyde Consultants

September 26, 1985 84C2145

Mr. Philip Rotstein, Hydrogeologist
Pennsylvania Department of Environmental Resources
Bureau of Solid Waste Management
1875 New Hope Street
Norristown, PA 19401

Dear Mr. Rotstein:

Enclosed is a copy of Woodward-Clyde Consultants' report on the hydrogeologic investigation of the Philadelphia Coke Plant, Philadelphia, Pennsylvania. This report is submitted by WCC on behalf of Philadelphia Coke Company, Inc., and presents the analytical results of the second round of groundwater sampling conducted June 26, 1985.

Included in this report are comparisons of the analytical data of the first and second quarters. It was noted that several groups of compounds were not detected or did not fluctuate in either quarter and have thus been recommended for omission from future analyses. The list of these compounds recommended for omission may be found on Page 7 of the enclosed report. In order to maintain a timely schedule for the collection of the third-quarter groundwater samples, we would appreciate a prompt response by the PADER to the suggested compound deletions.

Please contact us if you have any questions or comments.

Very truly yours,

WOODWARD-CLYDE CONSULTANTS

reodere w. Tayla

Theodore W. Taylor Senior Staff Geologist

TWT/clo/12A

cc:

J. Hogeboom

C. Kufts

P. Jacobson

Consulting Engineers. Geologists and Environmental Scientists

Offices in Other Principal Cities



SECOND QUARTER GROUNDWATER SAMPLING RESULTS PHILADELPHIA COKE PLANT PHILADELPHIA, PENNSYLVANIA

Submitted to:

PHILADELPHIA COKE COMPANY, INC.

Prepared by:

WOODWARD-CLYDE CONSULTANTS

Plymouth Meeting, Pennsylvania

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INTRODUCTION

A year-long, baseline investigation of the hydrogeology of the Philadelphia Coke Plant has been undertaken in order to assess the extent of any groundwater contamination at the plant site. This investigation is based on the chemical analyses of groundwater samples obtained on a quarterly basis. The results of the first quarter groundwater sampling have been presented in our report dated June 7, 1985. This report was then submitted to the Pennsylvania Department of Environmental Resources (PADER) on July 16, 1985.

The second quarter groundwater samples were collected on June 26, 1985 and the analytical results are presented in this report. Comparisons of these data with the previous data are made. Interpretations and conclusions concerning the extent of contamination and possible off-site migration are also discussed and re-evaluated.

GROUNDWATER CHARACTERISTICS

GROUNDWATER FLOW REGIME

Groundwater levels were measured in each of the four monitoring wells prior to sampling on June 26, 1985. A second round of measurements was obtained after most of the wells had had time to fully recover to determine if significant tidal effects from the Delaware River exist in this aquifer. The elevations of the water table are presented in Table 1. From these elevations, the potentiometric surface indicating groundwater flow directions was contoured and is shown on Plate 1.

Plate 1 illustrates that the groundwater at the plant site flows radially outward from a central high located near Well W-2. This pattern of groundwater flow for June 26, 1985 is consistant with that for April 8, 1985 during the first quarter round of sampling. The average elevation of the water table is essentially the same for both dates. The hydraulic gradients across the plant site have also remained unchanged from April to June. The gradient is considerably steeper from Well W-2 northwestward to Well W-4

than it is from Well W-2 southeastward to the Delaware River (toward Wells W-1 and W-3). The interpretations concerning the possible causes of the radial pattern of groundwater flow are discussed in our June 7, 1985 report. A more definative understanding of the causes of this radial flow pattern is not possible without the installation of several additional monitoring wells.

As with the April, 1985 data, tidal effects of the Delaware River on the elevation of the water table aquifer appear to be minimal. Table 1 confirms that negligable differences exist between two water level measurements obtained during different stages of a tidal cycle.

SAMPLE COLLECTION

Prior to sample collection, each well was purged of approximately three well volumes to ensure the collection of a representative groundwater sample. Purging was accomplished using a stainless steel bailer. After purging, the groundwater sample was collected also with a stainless steel bailer. Once the samples were obtained, they were placed on ice and transported directly to the laboratory. The samples for metals were filtered with a 0.45-micron filter before being placed in an acidified sample bottle. All equipment used during purging and sampling was steam-cleaned between wells to prevent cross-contamination.

ANALYTICAL RESULTS

The second quarter groundwater samples were analyzed for the compounds listed in Table 2. The results of the chemical analyses are summarized in Tables 3 and 4 according to priority pollutant compounds and water quality parameters respectively. The raw data from the laboratory have been included as Appendix A. For comparison, the analytical summary tables of the June 7, 1985 report have been provided as Appendix B. Discussions of pertinent results are presented below.

PRIORITY POLLUTANT COMPOUNDS

For the second quarter, fourteen priority pollutant organic compounds were detected in the monitoring wells at the plant site (Table 3). No organic compounds were detected above the laboratory detection limits in Well W-3. Only bis (2-ethylhexyl)phthalate (a constituent of PVC well pipe) was detected in Well W-4. Wells W-1 and W-2 contained some volatile organic compounds, notably benzene and toluene, and several base/neutral compounds in low concentrations. Well W-2 also contained the volatile organic compound ethylbenzene. The only acid-extractable compounds detected were phenol and 2,4-dimethylphenol in Well W-2.

Volatile Organic Compounds: Consistant with the first quarter analyses, the groundwater near Well W-2 is the most contaminated with respect to organic compounds. The acid-extractable and volatile compounds detected in W-2 are the same for both sampling rounds. The volatile compounds, benzene, toulene, and ethylbenzene have a total concentration of 315.1 parts per billion (ppb) in June and a total concentration of 206 ppb in April. Since compound concentrations are generally discussed in terms of orders of magnitude, this is not a significant increase in volatiles from April to June. The relative concentration of these three compounds is also unchanged with benzene being the most abundant, followed by toluene and then ethylbenzene.

Acid Extractable Compounds: The acid compounds, phenol and 2,4-dimethylphenol, were detected in Well W-2 for both sampling rounds. These two compounds had a total concentration of 276 ppb in June and 30,310 ppb in April. This is a significant drop by two orders of magnitude in total concentration from April to June. Possible causes of this decrease include:

- 1) the drop in concentration is real and the contaminants are actually becoming less abundant with time,
- 2) non-aqueous liquids may be present as a second phase discrete from the groundwater,

- 3) laboratory inconsistancies are being recorded, or
- 4) seasonal variations in recharge through the source area may be reflected in groundwater concentrations.

The possibility that there is a real decrease in acid compound concentrations from April to June is valid in that without the Coke Plant operating, the source of contamination has been eliminated and concentrations should naturally decrease with time. Further quarterly analytical results will aid in resolving longer-term trends. Such sampling will also help to ascertain the possibility of seasonal fluctuations.

It is possible that, for such a large decrease to have occured, non-aqueous, second-phase fluids are present. During the next round of sampling, measures will be taken in an attempt to identify the presence of these fluids. This will include obtaining a separate sample from the bottom of the well (not to be analyzed by the laboratory) in a clear glass jar and noting any second phase separation of the liquid collected.

The possibility that the large decrease is a result of laboratory error is unlikely due to the laboratory's quality control assurances, as documented in RMC Labs' QA/QC manual, previously submitted to PA DER. Additional analyses for the third and fourth quarters should elucidate any problems within the laboratory.

Base/Neutral Compounds: Eight base/neutral compounds were detected in Well W-2, and five were detected in Well W-1 for the June groundwater samples (Table 3). This compares with only two compounds detected in Well W-2 and none in Well W-1 for the April groundwater samples. With the exception of acenaphthylene, and the two "bis-2" compounds, all of the compounds are products of coal tar distillation processes. Bis(2-ethylhexyl)phthalate is a known product of the PVC well pipe used for this study. Bis(2-chloroethyl)ether may also be a PVC consituent, but it is known to be constituent of solvents and paint, both of which may have been used at the plant site. Acenaphthylene is a product of combusting aromatic hydrocarbon fuels containing pyridene; such a process is not known to have occured at the plant site.

WATER QUALITY PARAMETERS

The water quality parameters for June are listed in Table 4. In general, only a few changes in concentration are observed between the April and June results. Most notable are an increase in sodium and chloride in both Wells W-1 and W-4. A sharp decrease of Total Organic Carbon (TOC) occurred in Well W-4 from April to June.

From the second round of water quality analyses presented in Table 4, the following parameters were detected in amounts greater than their respective Primary or Secondary Contaminant Levels in drinking water: nitrate in Well W-3; chloride in Wells W-1 and W-2; iron, cyanide, and coliform in Wells W-1, W-2, and W-4; and alkalinity, ammonia, manganese, sodium, sulfate, and total dissolved solids in all monitoring wells. Several metallic compounds plus herbicides and pesticides have not been detected in either sampling round and are thus recommended for omission from future analyses.

A detailed assessment of the trends in water quality parameters will be provided in the final report upon receipt of the fourth quarter analyses. There is not yet enough data over an extended period of time to accurately assess the few fluctuations noted.

COMPARISON OF RESULTS

Overall, the analytical resuts of the first and second quarters are similar with respect to the types of compounds found, the concentrations detected, and the location of the contamination at the plant site. For both sampling rounds, Well W-2, located in the center of the plant site, was the most contaminated. The acid and volatile organic compounds detected were also the same for both periods. Also similar is that Wells W-3 and W-4 are relatively clean with no priority pollutant organics being detected above the minimum detection limit.

Differences in the two analyses include the large drop in concentration of acid compounds in Well W-2 and the additional base/neutral compounds detected in Wells W-1 and W-2. Both of these conditions were discussed in the previous section.

The only other significant difference between the sampling rounds is the detection of priority pollutants in Well W-1 in the June analyses. No priority pollutants were detected in this well in April. The contaminants detected in Well W-1 in June (see Table 3) are all products of coal tar distillation and are the identical compounds as those detected in Well W-2. All are present in relatively low concentrations. The detection of contaminants in Well W-1 is not unexpected inasmuch as it is located adjacent to abandoned tar plains.

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SUMMARY

The analytical results of the groundwater for the first and second quarter suggest that the contamination at the Philadelphia Coke Plant is limited in both areal extent and compounds present. (Wells W-2 and W-1 are the only wells in which groundwater contamination has been detected.) The contamination is also limited to compounds related to coal processing facilities. The fact that a steeper hydraulic gradient exists between Wells W-2 and W-4 than between Wells W-2 and W-1 and the fact that no contamination has been detected in Well W-4 suggest that the contamination in W-1 is not due to contaminant migration from W-2. This and the analytical results suggest that the Philadelphia Coke Plant is the source of localized groundwater contamination, but that the contaminants are not migrating far from where they were originally stored on the surface in plains and lagoons.

For the June analytical results, the only organic compounds detected which may be of environmental significance are benzene and acenaphthene. Benzene is a concern due to its carcinogenic nature. Acenaphthene, a base/neutral compound detected only in the June analyses, occurs in concentrations of approximately 60 ppb above its standard limit for ambient water. This level will be closely monitored in the following sampling rounds to better assess its possible environmental impact.

RECOMMENDATIONS

The work remaining to be completed for this hydrogeologic assessment of the Philadelphia Coke Plant site includes the collection and analysis of two additional quarterly rounds of groundwater samples. The next round of sample collection is scheduled for early October, 1985.

Based on the results of the first two quarters, it is recommended that the following parameters be omitted from future analyses:

- Biological Oxygen Demand
- Aluminum
- Arsenic
- Barium
- Lead
- Mercury
- Selenium
- Silver
- All Herbicides
- All Pesticides

These omissions are recommended since the parameters were either not detected, or detected at levels below standard water quality limits.

Tables

TABLE 1
GROUNDWATER ELEVATIONS
JUNE 26, 1985

Well	Water Elevation(1)	Time (a.m.)	Water Elevation	Time (a.m.)
W-1	5.44	7:12	5.44	11:31
W-2	9.39	7:23	-	-
W-3	7.72	7:18	7.76	11:37
W-4	1.80	7:05	1.75	11:25

Note: High tide at approximately 8:30 a.m.

(1) All measurements in feet above mean sea level.

- Not fully recovered

TABLE 2

CHEMICAL PARAMETERS ANALYZED SECOND QUARTER SAMPLING JUNE 26, 1985

ORGANIC COMPOUNDS

Volatile Organic Compounds Base/Neutral Compounds Acid-Extractable Compounds

PARAMETERS ESTABLISHING GROUNDWATER QUALITY

ChloridesPhenolsIronSodiumManganeseSulfates

PARAMETERS USED AS INDICATORS OF GROUNDWATER CONTAMINATION

pH TOC (Total Organic Carbon) Specific Conductance TOX (Total Organic Halogen)

APPENDIX II PARAMETERS

Arsenic Mercury Endrin
Barium Nitrate Lindane
Chromium Selenium Methoxychlor
Fluoride Silver Toxaphene
Lead Coliform Bacteria 2,4-D

2,4,5-TP

ADDITIONAL INORGANIC PARAMETERS

Alkalinity Total Dissolved Solids

Aluminum BOD Almmonia as N COD

Cyanide

TABLE 3
SUMMARY OF PRIORITY POLLUTANT ORGANIC COMPOUNDS DETECTED
SECOND QUARTER SAMPLING
JUNE 26, 1985

	Well				Field	Detection
Compound(1)	W-1	W-2	W-3	W-4	Blank	Limit
Acid Compounds			<u> </u>			· · · ·
Acid Compounds			•			
Phenol 2,4-dimethylphenol	ND ND	21 255	ND ND	ND ND	ND ND	10 10
Volatile Compounds			r	,		
Methylene Chloride	BMDL	BMDL	BMDL	BMDL		1.0
Benzene	1.3	234	ND	ND	ND	1.0
Toluene Ethylbenzene	0.2 ND	$\begin{matrix} 76 \\ 5.1 \end{matrix}$	$egin{array}{c} {\sf BMDL} \\ {\sf BMDL} \end{array}$	ND ND	$egin{array}{c} 0.2 \ ext{BMDL} \end{array}$	$\begin{smallmatrix}0.2\\1.0\end{smallmatrix}$
Base/Neutral Compounds	;		٠.			
Naphthalene	BMDL	116	ND	ND	ND	5
Acenaphthene	84	76	ND.	ND	ND	5
Fluorene	BMDL	58	ND	ND	ND	5
Phenanthrene	13	14	ND	ND	ND	5
Pyrene	9.5	6.5	ND	ND	ND	5
Benz(a)anthracene	14 6.7	25 ND	ND	ND 5.8	ND ND	7 10 5
Bis(2-ethylhexyl)phthalate Bis(2-chloroethyl)ether	ND	33 UN	ND ND	ND	ND ND	. 5
acenaphthylene	ND	32	ND	ND	ND	5

(1) Results in parts per billion (ppb)

BMDL Below Minimum Detection Limit

ND Not Detected

TABLE 4
SUMMARY OF WATER QUALITY PARAMETERS
SECOND QUARTER SAMPLING
JUNE 26, 1985

Parameter	Units	W-1	W-2	W-3	. W-4	Field Bank
Alkalinity	mg/l	251	1093	44.2	314	<1.0
Ammonia	mg/l	333	1260	13.1	60.2	<0.02
Coliform, Total	Colonies/					
	100 ml	13	2400	1	8	******
Biochemical Oxygen						
Demand	mg/l	**	**	**	* *	**
Total Organic Carbon	mg/l	5.97	7.67	5.51	3.16	1.29
Chemical Oxygen Demand	mg/l	573	1856	57.3	269	<7.0
Chloride	mg/l	416	1633	14.8	152	< 3.0
Cyanide	mg/l	38.0	120	0.001	16.8	< 0.001
Fluoride	mg/l	1.0	1.5	0.47	0.08	<0.05
Aluminum, Dissolved	mg/l	< 0.5	< 0.5	<0.5	<0.5	<0.5
Arsenic, Dissolved	mg/l	< 0.001	0.026	<0.001	0.008	<0.001
Barium, Dissolved	mg/l	0.5	< 0.5	<0.5	0.5	<0.5
Chromium, Dissolved	mg/l	< 0.004	0.016	0.002	0.006	0.003
Iron, Dissolved	mg/l	49	2.69	<0.05	62	<0.05
Lead, Dissolved	mg/l	< 0.001	< 0.001	< 0.001	0.002	<0.001
Manganese, Dissolved	mg/l	12	0.71	1.4	4.7	< 0.05
Mercury, Dissolved	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Selenium, Dissolved	mg/l	0.005	0.003	0.003	0.004	0.003
Silver, Dissolved	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Sodium, Dissolved	mg/l	144	430	53	184	<0.2
Total Organic Halogens	μ g/l	19	69	7	18 ·	29
Herbicides:						
2,4-D	$\mu g/l$	2.5	2.5	< 1.0	< 1.0	<1.0
2,4,5-TP	$\mu g/l$	< 10	< 10	< 1.0	<1.0	< 1.0
Pesticides:						
Lindane .	μ g/l	< 0.003	< 0.03	< 0.003	< 0.003	< 0.002
Endrin	$\mu g/l$	< 0.022	< 0.22	< 0.022	< 0.022	< 0.027
Methoxychlor	$\mu g/l$	< 0.049	< 0.49	< 0.049	< 0.049	< 0.058
Toxaphene	μ g/l	< 0.098	< 0.98	< 0.098	< 0.098	< 0.020
Phenols	μ g/l	0.01	3.69	< 0.005	0.014	0.005
pН	Standard	6.40	7.45	6.19	6.57	6.05
Total Dissolved Solids	mg/l	2830	3870	921	1320	18
Specific Conductance	μmhos/					
-	cm@ 25°C	4094	9929	1097	1777	1.5
Sulfate	mg/l	1675	2512	420	511	< 15
Nitrate	mg/l	< 0.005	< 0.005	10.5	<0.005	< 0.005

^{**} Data not available due to laboratory loss of sample